d. Now, put the three elements together into a complete report to Mary about her response?

____

____

____

____

____

* *

CHECKUP! Do the following to your answer for d:

1. Circle the feeling word.
2. Underline the reference to a specific part of the answer.
3. Put ( ) around the qualitative feedback.
4. Then compare your answer to this one:

   Mary, you are happy because that is a hard concept to explain and you phrased it very well. A number family (is a group of number facts) that give us different (meanings) for the same number.

* *

PRE-TEST FEEDBACK! Look back at Section 3 of the Pre-test. Do the following for each response you wrote to a student.

1. Determine how well you identified and reported feelings to the student.
   a. Circle each feeling word you used in your response.
   b. Give yourself 1 point for each response in which you reported the student's feelings. Do not count 1 for responses in which you reported your own feelings.
   c. The modal score is 1.

2. Determine how well you indicated to students that you had really listened to the answer.
   a. Underline any reference to a specific part of the student's answer.
   b. Give yourself 1 point for each response in which you made a specific and non-negative referral to the part of the student's answer.
   c. The modal score is 2.

3. Determine how well you reported on the quality or accuracy of the student's response.
   a. Put ( ) around any qualitative feedback you provided without making the student feel negative about self.
   b. Give yourself 1 point for each response in which you gave qualitative feedback which had the following characteristics:
      (1) Your response provided the information necessary to compare and re-think an inaccurate response or to evaluate as satisfactory an accurate response.
      (2) Your response made it okay to have tried and erred, when an error was made.
      (3) Your response did not verbally reinforce any error.
      (4) Your response did not use negative words.
   c. The modal score is 2.

4. Now, determine your total score for this part of the pre-test. Add up your scores for 1, 2, and 3 above. The modal for total score is 5.

REVIEW: What are the parts of a complete report to the student about his answer.

a. ______________________________

b. ______________________________

c. ______________________________

* *

CHECK UP! A complete report has these three parts:

a. Feeling
b. Specificity
c. Quality Feedback

* *

Expanding Interaction: So far, we have been dealing with how to report to the student on what he said. Another part of responding is what you do with the student answer . If you just let it lie there and die, you have effectively signaled that you didn't like it and/or that it was not an adequate response. This often happens when a student finishes answering and the teacher says "Next!" A slightly better level of responding to the student's answer is a bare evaluation: "Good" or "Wrong." A good level of response is the complete 3-part report to the student as outlined above, but sometimes you may need or want to do more than just report to the student on his answer.

The best kind of class interaction comes when the students' answers can be used to build towards the next response or question. This happens when you expand the interaction by your next elicitation (the question following your report to the student on his/her response). Figure 4 on the next page diagrams the Expanded Questioning Triad. Expanding the interaction in this way is an additional signal to the student that you found his contribution worthwhile. Expanding the interaction can occur in several ways! The teacher can:

a) Request the student to extend his own answer.

Examples: Can you add...?
Can you explain how...?

b) Request the student to clarify his own answer.

Examples: What do you mean...?
Would you rephrase...?

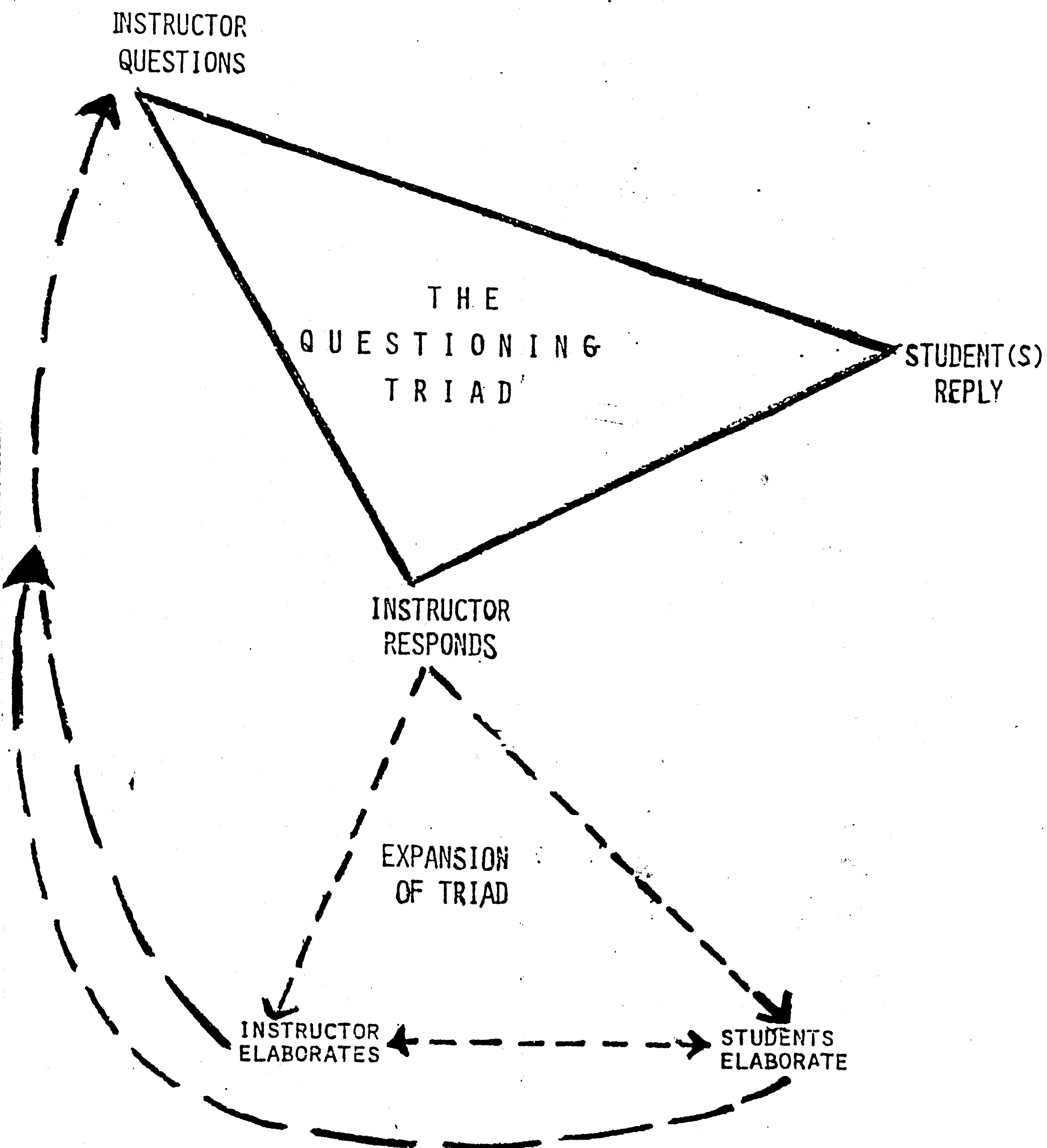
c) Request the student to justify or support his own answer.

Examples: What are your reasons...?
Can you give some proof...?

d) Redirect the student's response towards including or utilizing another pupil's prior response.

Example: How is that like what Bill said about...?

Figure 4 : The Expanded Triad



e) Incorporate the student's response as the basis of elicitation for the next student so that it becomes a meaningful part of the exploration in which the class is involved. In doing this, you ask another student to extend, clarify, justify, support, redirect, or evaluate the prior student's answer.

Example: Jerry, can you put Judy's and Bill's answers together and draw a conclusion about...? Howard gave some good reasons for his support of the Cardinals. Can anyone add to them?

TRY IT! Below is a small segment of a class interaction. Read it, respond to Bill, and then write a new question you could ask in order to expand the interaction. Make one question for each of the possible ways listed above. You should write five different questions.

Mary: I think...oh...I think a number family are numbers that tell different stories about the same number.

Teacher: Mary, you are happy because that is a hard concept to explain and you phrased it very well. A number family is a group of number facts that give us different meanings for the same number. Who can give us an example of some members of a number family?

Bill: 4 plus 4 = 8 and 10 - 2 = 8 are both members of the same family because they both tell how much 8 is.

First, report to Bill on his answer.

____

____

____

____

* *

CHECK UP! All three components of a complete report? Check by circling the feeling word, underlining the specific reference, and putting ( ) around the qualitative feedback that lets Bill know his answer was a good one.

* *

Now, write new questions you could use to expand the interaction.

1. ____
2. ____
3. ____
4. ____
5. ____

Which of your questions asks Bill to extend his own answer? __________

Which of your questions asks Bill to clarify his own answer? __________

Which of your questions asks Bill to justify or support his own answer? __________

Which of your questions redirects Bills' response to use or include Mary's answer? ____________________

Which of your questions incorporates Bills' response as part of elicitation for the next student? ____________________

* *

CHECK UP! Compare the questions you wrote with these example questions:

Extend: Bill, can you give us another member of the same family?

Clarify: Bill, what do you mean by "how much" a number is?

Justify or Support: Bill, can you give us another reason why those two facts belong to the same family?

Redirect: Bill, can you explain how those two facts fit Mary's definition of number family?

Incorporate: Bill said these two facts belonged to the same family because they both told how much 8 is. Jerry, can you tell us more about the number family for 8?

* *

REVIEW: Read the following outline of the material in the module. Do these things:

1. As you read each item, ask yourself: Do I understand this? Can I do this?
2. Circle any item on the outline to which you answer "No!"

TEACHER BEHAVIORS IN
THE QUESTIONING TRIAD

ELICITATION

A. Decide purpose for question

B. Choose kind of question to meet purpose

C. Ask question

LISTENING

A. Indicate who is to respond
   1. En Masse
   2. Post-Select
   3. Pre-Select
   4. At Will

B. Listen to student's response
   1. Identify feeling
   2. Identify content
   3. Identify quality/accuracy of content

RESPONDING TO STUDENT

A. Report to the student about his answer
   1. Reflect feelings
   2. Refer to specific content
   3. Report on quality/accuracy without making student feel negative about himself.

B. Use answer to Expand the Interaction

1. Request student to extend his answer
2. Request student to clarify his answer
3. Request student to justify/support his answer
4. Request student to redirect his response to include a prior student's response
5. Incorporate student's response as basis for elicitation to next student.

* *

CHECK UP! If you circled any item in the outline, go back and restudy that part of this module or ask your instructor for additional material.

If you did not circle any part of the outline, you are ready to take the post-test.

* *

POST-TEST

I. Now take the Post-Test on elicitation skills and see how much your scores have improved.

1) Turn back to the Pre-Test and look at the three topics you listed. Select one of the two topics that you did not use for the Pre-Test.

2) Write five questions which you could ask your students about the topic you selected. Use the spaces below:

Questions	Kind	Cont.
1. ________		
2. ________		
3. ________		
4. ________		
5. ________		
Total		
Kind + Cont. Score		

3) Evaluate your questions as you did on the Pre-Test. The point system is:

KIND	CONTENT
Narrowing - 1	Cognitive -1
Expanding - 2	Cognitive Plus Affective - 2
Evaluating - 3	

4) Was your score higher on the Post-Test than on the Pre-Test?
Yes______No_______

II. Read this situation and student response.

Charlie slouched in his seat and looked away from you while you were deciding whom to call on. When you called his name, he jerked his head, sat up straight in his seat, put his shoulders back tight, and loudly gave the following wrong answer while staring defiantly at you.

"I think the Washington Monument is the most wonderful building in the world because it is the tallest man-made structure. It is so tall that when the wind blows, it sways back and forth ten feet at the top."

1. Write your response to Charlie:

____

____

____

____

____

* *
* Check your answer.
*
* 1. Circle the feeling word.
*
* 2. Underline the reference to specific content
*
* 3. Put ( ) around the qualitative feedback.
*
* Give yourself 1 point for each component you included.
* *

2. Write a question to ask <u>after</u> your response to Charlie which would expand the interaction.

____

____

3. Circle the kind of expansion question which you wrote.

1. extend own answer
2. clarify own answer
2. justify/support own answer
4. redireet response
5. incorporate for question to next student

4. How do <u>you</u> <u>now</u> feel about your own skills in using these behaviors of the Questioning Triad?

Good   Okay   Not Sure   Terrible

If you met these criteria, you may go on through the module.

1. You scored higher on Part I of the post-test than on Part I of the pre-test.

2. In Part II of the post-test, you...

   a. scored 3 on # 1

   b. were able to write a question you are satisfied with in # 2

   c. could classify your question in # 3

   d. answered "good" or "okay" in # 4

Practical Application:

1. Plan a discussion for one period during this next week. Prepare for it by making a list of questions that will take the students beyond the fact level in their responses.

2. Tape record the resulting class discussion. Identify each question you asked as narrowing (N), expanding (EX), or evaluating (EV).

3. Everytime you identify a Narrowing question, stop the tape recorder and try to formulate it as an Expanding question. When you identify an Expanding Question on the tape, try to reformulate it as an Evaluating one.

4. Listen to recorded session again. Identify each question you asked as including Cognitive only (c) or Cognitive plus Affective content (CA). Practice formulating your "Cognitive Only" questions as "Cognitive plus Affective" questions.

5. Find a spot on the tape at which you like the kind of interaction which is happening. What kinds of questions are you asking?

* *

Congratulations. You have worked hard and finished the module. Now your students can benefit from the skills you've sharpened and you can control the Questioning Triad!

* *

USING AUDIO-VISUAL AIDS

Intended Learning Outcomes

1. The participant can name 15 different instructional aids and indicate the proper usage of each aid.

2. The participant can plan, design, and produce audio-visual aids to support his/her own instruction.

3. The participant uses appropriate criteria to ensure good visual characteristics for audience perception of audio-visual aids.

Materials Needed: This module and a pencil.

OVERVIEW

Many kinds of audio-visual aids can be utilized by the creative and innovative instructor. Each has its own appropriate usages and criteria for production. This module will briefly present several types of audio-visual aids and some of the considerations involved in their usage. In addition, it will present some principles for design and production of good audio-visual aids.

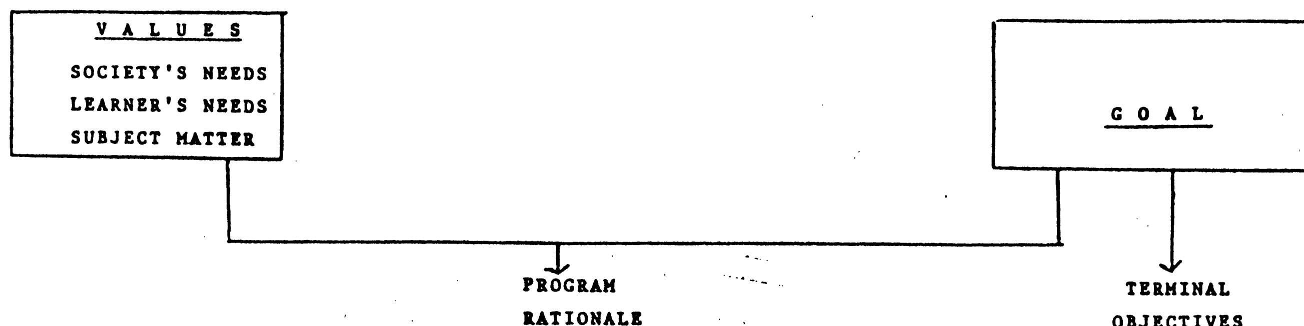
PRINCIPAL

Audio-visual materials can be used to present information, to illustrate content, or to supplement or enrich the curriculum. They help the teacher structure learning experiences so that learning can occur most effectively and efficiently. In addition, audio-visual materials are useful in the Show and Do steps of the Four-Part Lesson. Because students do not all learn through the same modes, audio-visual materials offer each student the chance to learn in the way which is most appropriate for him/her.

LEARNING ACTIVITIES

When a systematic curriculum development procedure is utilized for the planning and implementation of instructional programs, the utilization of audio-visual aids becomes most effective. They are important for providing such factors as (1) specificity in meeting intended learning outcomes, (2) adaptability for groups or individuals, and (3) integration of other experiences with the learning occurring in the classroom.

NOTE: Figures in module borrowed from Stamper & Mann (1979).



SOCIETY'S NEEDS:

Teams of health care personnel who are committed to the dissemination of techniques and practices in family planning and maternal-child health care throughout the country

LEARNER'S NEEDS:

- Decision-making abilities
- Educational methodology
- Clinical skills
- Flexible curriculum to meet variety of learners' backgrounds, experiences, and skills

SUBJECT MATTER:

- Family Planning
- Maternal-child
- Asepsis
- Management & education

EXAMPLE OF PROGRAM RATIONALE

The rapid expanding field of health care emphasizes the importance of continuing education for all health care professionals. The shortage of physicians in the health care delivery systems of many developing countries creates a critical need for a program of continuing education for nurses in the field o family health. Given this nurse training, a physician's time can be more efficiently and effectively used for concerns in keeping with their expertise and result in improved care for a larger number of women and children. This comprehensive approach to maternal and child health for selected nurses and nurse-midwives from developing countries will include clinical concentrations in family planning in a community setting, gynecologic procedures in the operating room, and maternal and infant care. Additionally, it will include basic management skills, educational processes, & communication skills. The acquisition of these advanced level teaching skills will provide a base for the development of in-country continued education programs.

FIGURE 5: Developing a Course/Program Rationale

There are many types of audio-visual media. Table 1 lists several types and provides general suggestions as to appropriate purposes for each type. But you must remember that the specific media to be used in a specific lesson is determined by the requirements of the intended learning outcomes, the lesson content, and the planned instructional activities.

Audio-visual aids should not be used indiscriminately. Each aid offers a particular advantage and should be used for a particular purpose. The most effective teaching aid is the one for which the teacher has realized a need in order to reach a specific instructional objective or intended learning outcome.

Table 1: Suggested Audio-Visual Aids for Specific Purposes

1. BLACKBOARD
   To record sketches, outlines, technical words and assignments.
2. BOOKS
   To be used for assignments, reference and background information.
3. CHARTS AND GRAPHS
   To make comparisons or to show relationships.
4. CARTOONS
   To stimulate interest and develop proper attitudes, as well as to emphasize points.
5. CUTAWAYS
   To show interior structure and relationships of parts.
6. EXHIBITS
   To display commercial products, examples of good workmanship and sequence of operations.
7. FILM STRIPS
   To show the sequence of operations, historical development, and desirable habits and attitudes.
8. ILLUSTRATIONS
   To show, by use of picture or poster or cartoons, objects which are not available for display.
9. INSTRUCTION SHEETS
   To supplement the demonstrations and explanations of the teacher.
10. MOCK-UPS
    To take the place of the real thing when economy of space is necessary.
11. MODELS
    To take the place of the real object which is too small for instructional purposes or too large to bring to the instruction center.
12. MOTION PICTURES
    To be used when motion is necessary to the understanding of the specific operations involved.
13. OPAQUE PROJECTER
    To be used when large charts or illustrations are not available or when enlarged sketches or drawings are necessary for class observation.

Regardless of which audio-visual aid is selected or for what purpose one is used, it will have one or more of the following advantages:

1. Can be shown where the real object cannot be.
2. May show objects stripped of accessories and therefore simpler to understand.
3. May be handled or examined.
4. May show parts that can not be seen in the real thing.
5. Can show successive steps in a process or evolution.
6. Can extend learning time because the students may learn from the audio-visual aid without the teacher's presence.

Design of Audio-Visual Materials

There are three levels of design. They are: (1) mechanical level, (2) creative level, and (3) conceptual level.

At the **mechanical level**, the instructor is concerned solely with the techniques of preparation. Routine procedures are followed.

At the **creative level**, planning becomes an important part of the production process. Decisions must be made about materials and content for the specific audio-visual aid which is to be produced.

At the **conceptual level**, audio-visual materials are conceived within the total instructional process so that they can be carefully integrated into learning activities. Thus the AV aids can help meet the needs of the learners and attain the intended learning outcomes of the instruction.

The instructor may not be skilled at the mechanical level but he/she can still plan audio-visual aids at the conceptual and/or creative levels. In planning AV aids, the instructor must take into account several instructional comunication variables. Table 2 lists these variables.

Table 2: Instructional Communication Variables

0 Learner

0 Intended Learning Outcomes

0 Message

0 Media

0 Learning Environment

Planning for use of AV aids begins with a consideration of the instructional communication variables in Table 2. Each ILO for which an AV aid is needed in order to help learners achieve the desired outcome is identified. Then the specific message(s) which must be communicated by each AV aid are determined. The Learning Environment in which the instruction will take place is considered in terms of the media which are useful and/or possible in that environment. Finally, the best media to communicate the desired message(s) to the potential learners in the particular learning environment is identified.

Then the fun begins! Each AV aid must be designed (or selected) and sequenced. One good way to do this is through the use of Storyboards.

Using Storyboards

Storyboards may be either verbal or pictorial. In a verbal storyboard, ideas and messages are written on slips or paper or small cards and fastened to a planning board. (A small bulletin board can be used.) In a pictorial storyboard, hand-drawn sketches, snapshots, or pictures clipped from any source are pinned to the planning board.

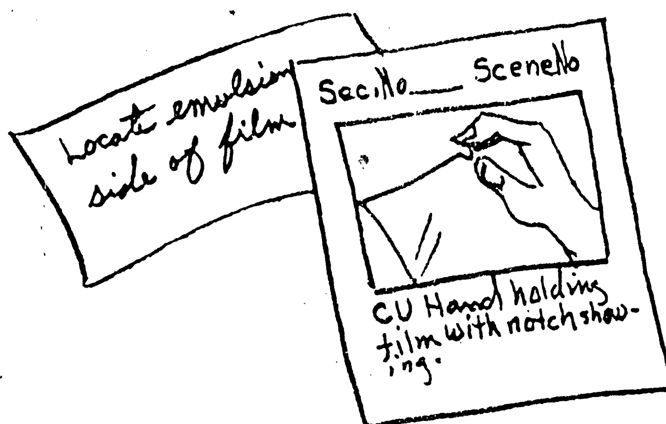


FIGURE 1: Storyboard Items

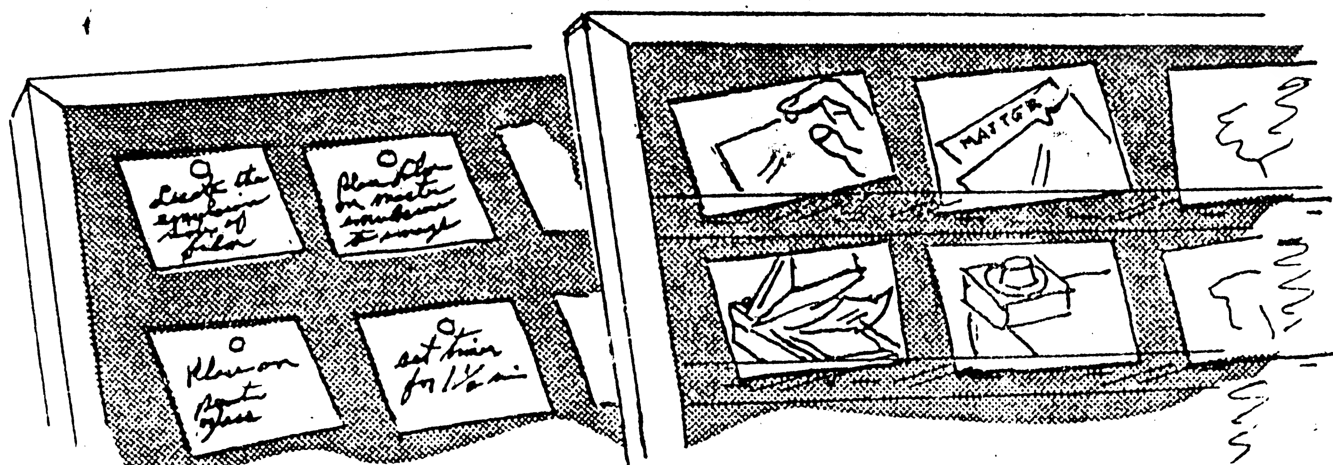


FIGURE 2: Storyboard Types

By using a separate paper or card for each item, you can have the flexibility of arrangement which is needed in planning. The verbal or pictorial items and ideas on the storyboard are arranged

and rearranged in the same manner as reading notecards are handled in writing a research paper.

The biggest mistake most instructors make in the use of AV aids is to start their work on a media presentation by beginning with the production steps rather than with the planning steps. They evidently think (1) that planning takes too much time or (2) that they don't need to take time to plan the media carefully because they are too knowledgeable about their subject to need such careful planning or (3) that they can't wait to see some results right away.

Remember, for good AV aids, the sequence is ....

PLAN -- THEN PRODUCE ! !

Producing the Art Work

Several factors must be considered in producing good media. These include (1) Legibility, (2) format, (3) information rate, (4) layout, (5) emphasis, (6) balance, and (7) movement. Each of these areas will be discussed.

Legibility: Whether a visual aid can be read by the viewer is determined by the physical dimensions and arrangement of the letters, lines, and symbols used. The size of the symbols or letters must be larger when the viewer is farther from the screen or surface on which the visual is displayed. For example, a one-fourth inch letter can be seen at 8 feet but is practically invisible at 128 feet. Symbol size refers to the projected image, not to the size of the letter on the media itself. Table 3 shows the symbol sizes required at varying viewing distances.

Table 3: Required Symbol Size

VIEWING DISTANCE	MINIMUM SYMBOL SIZE
128 feet	4 inches
64 feet	2 inches
32 feet	1 inch
16 feet	1/2 inch
8 feet	1/4 inch

Similarly, the total area covered by the projected image is determined by the maximium viewing distance. A simple formula can be used to determine how large the projected image should be:

$$(\text{maximum viewing distance}) \div 8 = \text{screen (image) height}$$

So if the last row of seats is 128 feet from the screen, you would divide 128 by 8 to get a required screen height of 16 feet. The symbol size of the individual letters on that 16 foot high screen would of course be 4 inches, as indicated in Table 3.

Another aspect of legibility is **line spacing**. Lines that are too close together are hard to read. The line spacing should be about 1 1/2 times the height of the letters when you have more than one line on a visual. In addition, the words that make up the lines should be phrased to that they flow freely. In Figure 3, the phrase on the left is difficult to read because the flow is jerky and stumbling. The arrangement to the right flows much better.



FIGURE 3: Phrasing

The final aspect of legibility is the line weight. Lines should be of varying thicknesses according to the complexity of the subject but should be bold enough to be read easily. In particular, the width of the strokes that make up the letters on your visuals should be thick enough to appear bold but should not be so thick that small openings in the letters seem to be filled in.



FIGURE 4: Line Weight in Lettering

Format: Artwork and letters should follow a standard format that is suitable for materials prepared for slides, filmstrips, 16mm films, and TV cards. A standard 9' by 11" flat with a 6" by 9" information area (see fig. 5) provides the following advantages:

* Ease of handling, filing and storage.
* Economy of materials, six mounts can be cut from a standard 22" x 28" sheet of cardboard.
* One minimum size requirement: for legibility of letters or significant detail.
* Simplicity in copying. One set up of light and camers.
* A margin outside the information area for handling, uniform labeling, registration pin holes, production notes, and to attach flips or overlays.
* A mount that will accept a standard 8" x 10" photographic print.

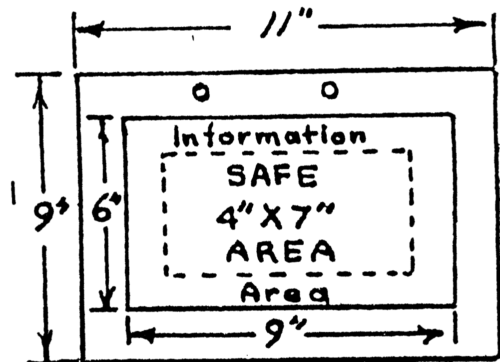


FIGURE 5: Format

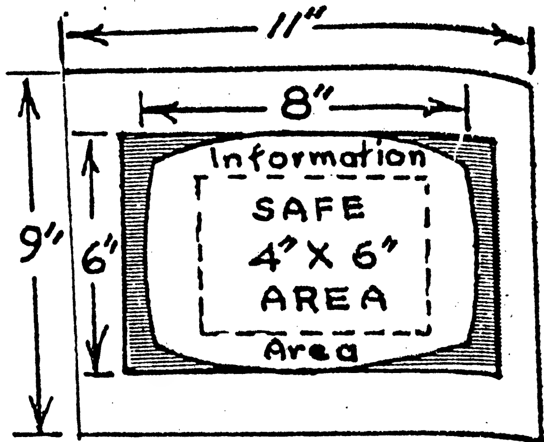


FIGURE 6: TV Format

* One artwork for: slides, filmstrips, 16mm films, and TV card with only slight modifications of information area margins.
* A safety margin of one inch provides a "safe" area of 4" x 7".
* For TV titles the usable "information" area is reduced to 6" x 8" conforming to the 3:4 aspect ratio of the television picture. Allowing a one inch safety margin, a "safe" area of 4" x 6" is provided. See Fig. 6.

The safety margins must be observed carefully; all important details and captions should be kept within the "safe" areas sdo you can be sure that they will be perceived by the viewer. Table 4 summarizes the format areas in artwork for various media.

Table 6: Format areas for Various Media

MEDIA	INFORMATION AREA	SAFE AREA
35MM slides	6" by 9"	4" x 7"
16mm film and filmstrips	6" by 9"	4" x 6"
TV titles	6" by 8"	4" x 6"

Information Rate: A lot of information should be presented on several visuals, rather than putting too much on one visual. Each visual should be limited to:

* One point or idea
* Six or seven words per line
* Six or seven lines per visual.

If you present all your infomation at once, some students will not hear your discussion because they will be reading ahead. You will have better control if the information is presented one item at a time. If you have complex information to present, do it with several successive visuals, revealing one more item on each visual till the final visual has all the items presented at once.

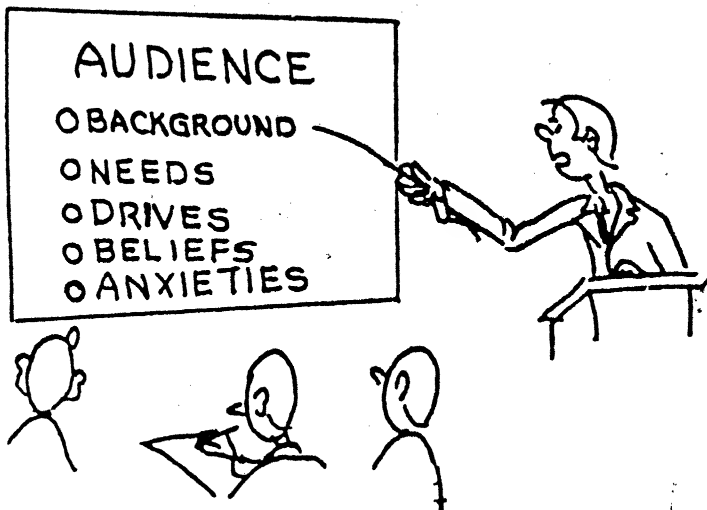


FIGURE 7: Too Much Information

Successive presentation of items also has the advantage that the learner will find it easier to handle complex information it it is shown

in step-by-step fashion. Too much information at one time may be confusing or overwhelming.

A similar effect can be obtained when using the overhead projector. You can control the rate of presentation by covering the transparency with a sheet of paper and sliding it down as your talk progresses. Thus, you can reveal one point at a time. Table 5 shows some aditional, more sophisticated, ways of obtaining the step-by-step presentation of information when using an overhead projector.

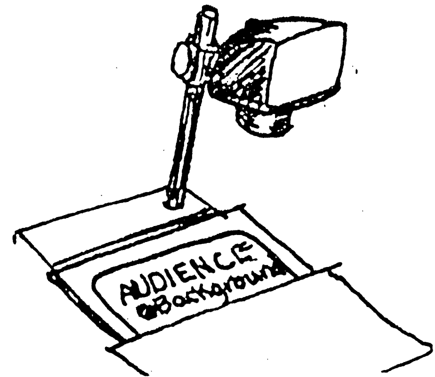
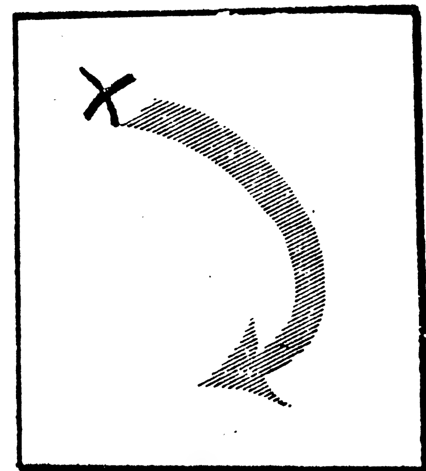


FIGURE 8: Overhead

Layout: The arrangement or layout of the various elements of a visual leads the eye to the important aspects of the visual. Layout determines how and what the viewer will see.

The eye usually begins looking in the upper left-hand corner of a visual and sweeps across and downward to the lower right-hand corner, for persons in western civilizations. This is because of reading and writing habits. Good layouts will direct the movement of the eye to the things you want to emphasize. Use lines, spots of color, numerals, arrows, symbols and illustrative matter to direct the eye where you want it to go.



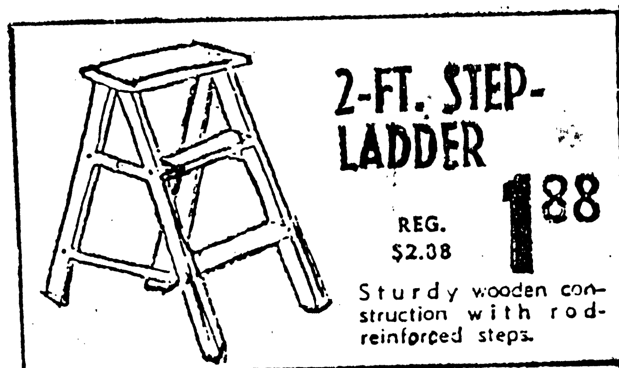


FIGURE 9: Effects of Layout

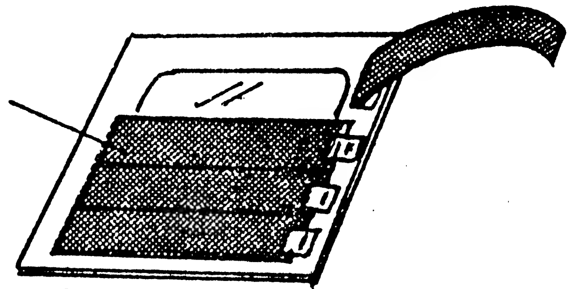
Table 5: Using Masks for Sequencing on the Overhead Projector

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Masks:

Strip Masks

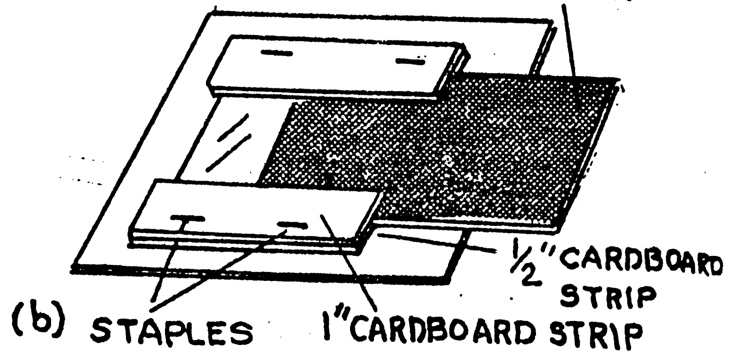
Reveal material item by item or paragraph by paragraph with strip masks made of light cardboard or file folders.



Sliding Masks

May be mounted to slide vertically, horizontally, or diagonally.

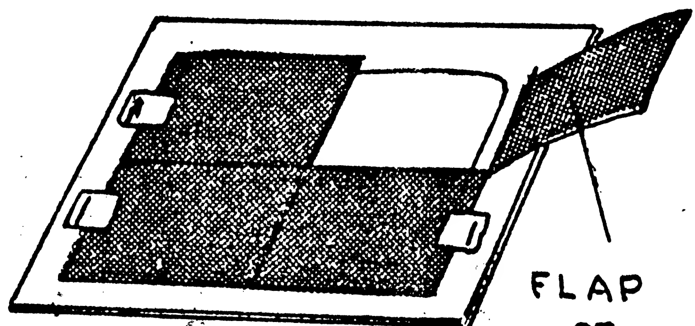
Make slide of 1" and 1/2" cardboard strips stapled to the mount as shown (b) in Fig. Use 6 ply cardboard for slides and sliding mask.

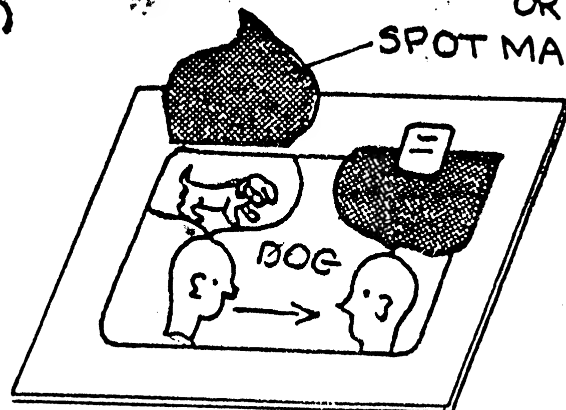


Flap or Spot Masks

Designed to reveal portions or sections of transparency as desired (c) and (d) Fig.

Hinge masks or flaps with nylon hinges as shown in Fig.





Another aspect of layout that you must consider is the composition of the visual. Composition has to do with where you place the major element in your visual. Putting it in the exact center is

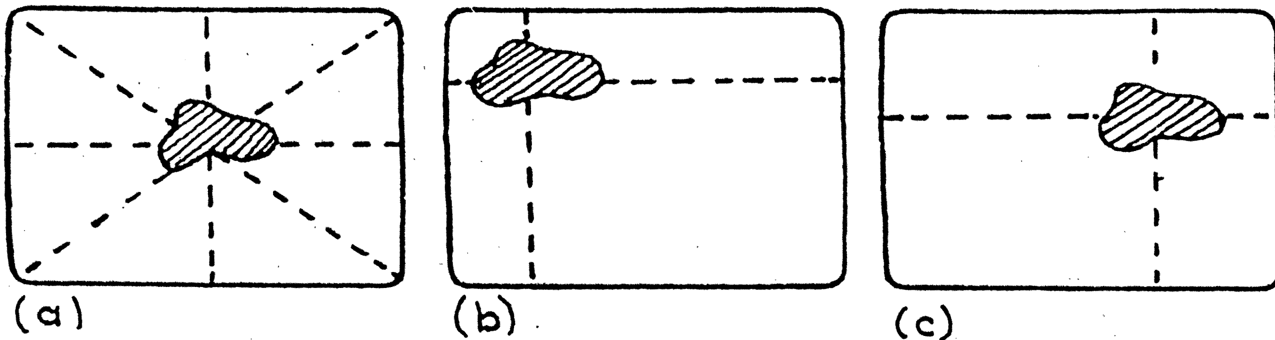
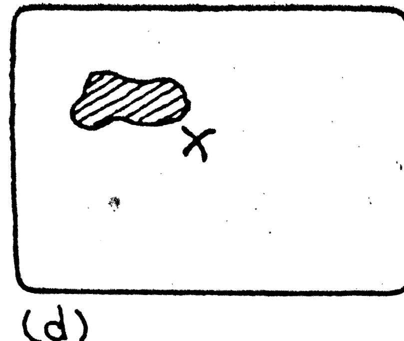


FIGURE 10: Composition

dull because of the repetition of the surrounding spaces. If the major element is near a frame line, you will have a more interesting compositon but if you put it too near the line, the rest of the visual will look empty. Any location except the center or too close to the frame lines is good.



A spot just to the left and above the center of the visual is called the aesthetic center. Anything put on this spot is perceived as more interesting and as being more pleasingly placed. Thus, you should consider placing the most important item in your visual at the aesthetic center of interest. If you decide to put it elsewhere, be sure to add emphasis to the element in order to attract the viewer to it.

EMPHASIS: All the components of a visual should work together to bring the viewer to focus on a single center of interest, which unifies the total visual. There are several ways to emphasize the desired focus of the viewer. These include:

- Place the element at the aesthetic center of the visual
- Make it large: the eye sees large things quicker than it sees small ones
- Use contrast, color, tone, texture or framing
- Use symbols, such as arrows, circling, or underscoring
- Keep the background simple

<u>Specifying the Curriculum: Intended Learning Outcomes</u>

In the curriculum development process, two kinds of learning outcomes are stated. First, educational goals are used to guide the specification of broad learning outcomes which are related to the goals. These are called **Terminal Objectives.** Each terminal objective specifies an area of content or a cluster of skills which the learner must know or perform as part of attaining the educational goals specified in the rationale.

Then the Termninal Objectives are broken down into specific learning outcomes which the learner must achieve in order to be able to perform the terminal objectives. These specific learning outcomes are called **Enabling Objectives.** They outline the actual content of the course and the expectations for the learners who will take the course. Figure 6 on page 12 diagrams the process of deriving the intended learning outcomes for a course and provides examples of both terminal and enabling objectives.

A curriculum always includes the intended learning outcomes and usually precedes them with a statement of the course rationale and the educational goals. The curriculum is usually organized so that the enabling objectives for each terminal objective are easily identifiable. <u>Examine the complete curriculum</u> presented on pages 15 - 20 and <u>note its organization</u>.

<u>The Instructional Plan</u>

Once the enabling objectives have been specified, the instructor can determine the activities, materials, and processes necessary for carrying out instruction so that the learner can attain the enabling objectives. These activites, materials, and processes are specified in the **Instructional Plan.** Figure 7 graphically portrays the process of developing the instructional plan.

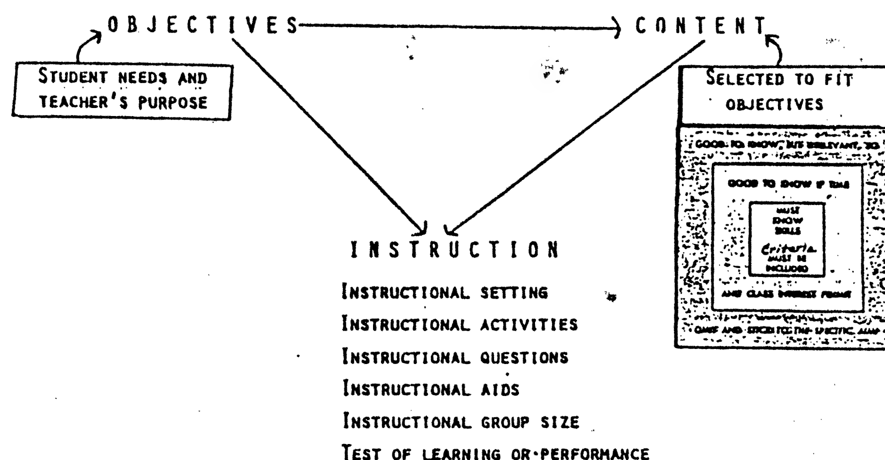


FIGURE 7: Developing the Instructional Plan

Balance: People tend to prefer balance and equilibrium in visuals. Balance comes in two types: Formal and Informal.

Formal balance occurs when figures or objects of equal weight are put on each side of the visual. In formal balance, the visual is always equally balanced.

Informal balance is attained by balancing elements of unequal weight through their placement within the visual. This is usually more interesting than formal balance.

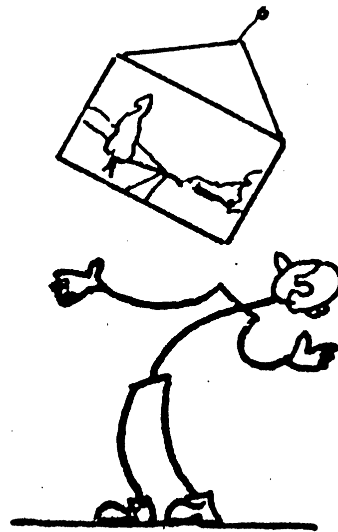
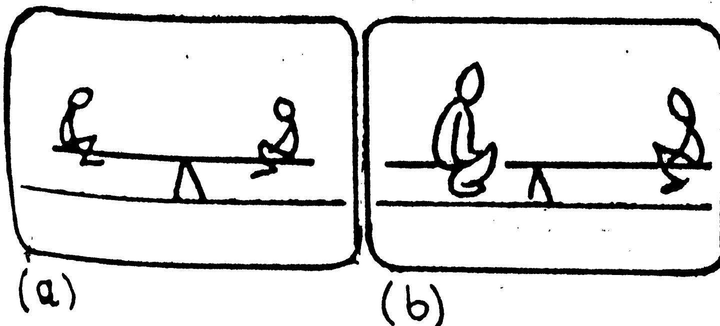


FIGURE 11: Equilibrium?

In addition to objects or elements, spaces, color, light, and shade must also be balanced within the composition of your visual. For most of these, informal balance is more interesting because it offers more variety.



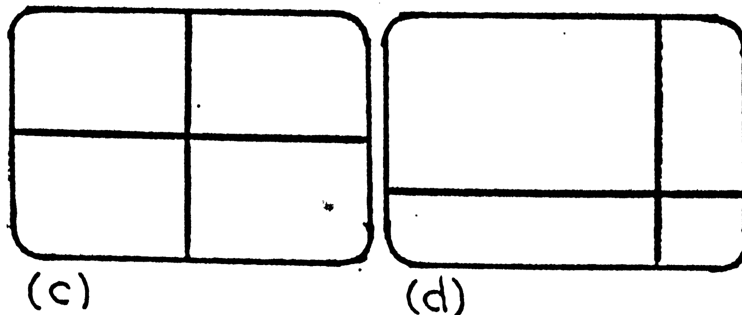


FIGURE 12: Formal vs. Informal Balance

The most interesting spaces are usually thirds. This is true regardless of whether the division is horizontal, vertical, or both.

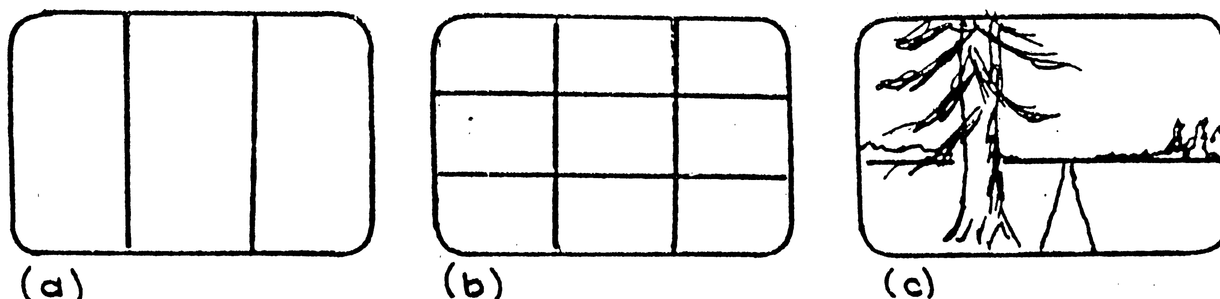


FIGURE 13: Interesting Spaces

Movement: The viewer's eye does not look at the entire visual all at once. Rather the eye moves from one point to another throughout the composition. You have to direct this movement into the sequence you want it to have by your use of lines, arrows, colors, numbers, and illustrative matter.

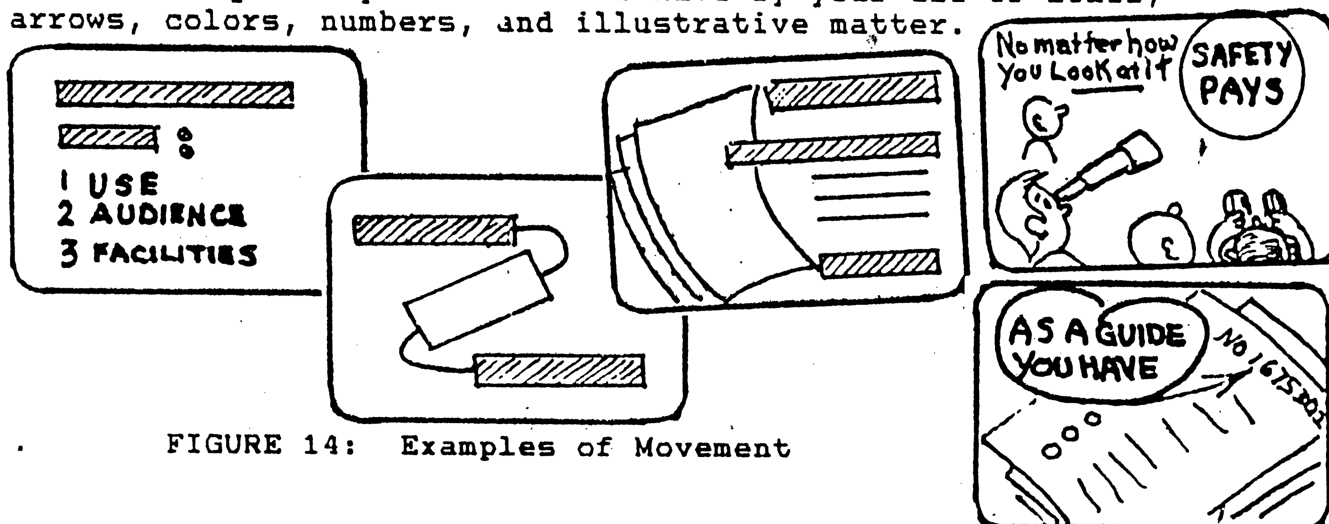


FIGURE 14: Examples of Movement

Organize information and emphasize key points by the use of color, numbers, illustration, arrows and placement. Tie important items at the top of a visual to important items at the bottom through illustration or lines.

Miscellaneous Tips about Audio Visual Aids

Table 6 explains how to use AUDIO-visual Aids in general. Three aids deserve some special consideration. Two of them are films and filmstrips. Tables 7 and 8 present some suggestions for the use of these two aids.

Table 6: Suggestions for Using Audio-Visual Aids

Good visual aids become most effective when used properly. The following suggestions should be observed when using aids:

1. They should be displayed for easy reference and study by students.
2. Aids which are designed to meet a specific need should be displayed when appropriate to the topic. Displays which are inappropriate to the topic can be a distraction.
3. When using aids in a lesson presentation, keep the aid out of sight until ready to use it. The greatest interest will occur at first observation.
4. Use aids by referring to them. Do not merely show them.
5. Let the aid take the place of a blackboard sketch, if possible. Aids provided with wire loops can be hung on blackboard hooks over the place where the sketch would normally appear.
6. A well-conceived aid will lend itself to a sequential and developmental presentation of the subject matter.
7. Develop paper instruction aids to correlate with the visual aid when possible.
8. Lesson assignments can be made which include study of the content of a visual aid.
9. Remove the aid when finished with it. Do not let the aid become a distraction during a lesson.
10. Encourage students to suggest and construct aids according to proper standards.
11. Good aids can sometimes be made better by including action. For example, enzymes which can be put into motion, simple valves which work, blood circuits which can be livened, parts which can be hinged, and so on.
12. Especially good aids can be made by photographing the subject with a 35 mm camera. The resulting transparency can be used as a slide for projection purposes.

13. A model is superfluous when the real thing is available. Models are valuable when the real object or mechanism:

a. Cannot be obtained.
b. Is not visible while in action.
c. Is too large to have in the class.
d. Is too small to be easily seen.
e. Is too expensive or fragile to permit handling.

Table 7: Suggestions for Using Films

Suggestions for Better Use of Films

A list of worthwhile suggestions for using films:

1. Select an appropriate film.
2. Choose one that is apropos to the lesson.
3. Preview the film.
4. Choose a film which does not run too long.
5. Establish clearly in your own mind the purpose of showing the film.
6. Note the highlights of the film in your personal preview.
7. Prepare the class for the film; point out highlights to observe.
8. Check all equipment for smooth operation in order to permit good presentation.
9. Follow-up with such things as questions, a quiz, a discussion or a written report.
10. Note the characteristics of the film on a file card record.

Previewing Films

It is very important that all films be previewed by the instructor before a showing. Failure to go through this process may result in embarrassment, ineffective use of the film or waste of time. Familiarity with the film content and necessary running time are the factors on which the successful use of film depend. In some cases, training guides which accompany the film materially assist the teacher in the presentation.

The preview should assist in answering these questions:

1. Is the film pertinent to the lesson to be taught?
2. Is the sequence of presentation correct?
3. Does it show any incorrect ways of doing things or unsafe practices?
4. Is it too long for one showing?
5. Does it cover too much subject matter?
6. Is it too technical for student understanding?
7. Should it be shown more than once to convey its meaning?
8. What is the best procedure of presentation: teacher or student reading the captions?
9. What is the best time for the showing—before or after a presentation?
10. How may the film be connected with the course subject matter, as well as the student's previous experience?
11. What kinds of questions should be asked or assignments made following the showing?

Table 8: Suggestions for Using Filmstrips

1. Preview film strips the same as other films.
2. Develop a file of appropriate film strips.
3. Obtain through school supplies a selection of strips which can be woven into the presentation of the course.
4. Plan for the use of a film strip as carefully as you would any other lesson. If the film strip is to be part of a lesson, make the appropriate notes on the lesson plan.
5. Film strips are far more valuable when used as part of a lesson. Their use should be restricted to perhaps ten to fifteen minutes.
6. Make the film strip valuable: do not merely show it but use it.
7. Prepare key questions about the film.
8. Prepare comments and explanations, applications and relationships which should be pointed out as the film progresses.
9. Make notes on the lesson plan which will help improve the use of the film strip in repeated showings.
10. Point out the title and aim of the film.
11. Instruct the class on the proper viewing of film strips. They should study the picture while the teacher reads the captions.
12. Do not permit long periods of silence while showing a film. You will lose your audience.
13. Read captions in a clear voice at a moderate rate of speed. Be sure all can see as well as hear.
14. Do not allow note-taking while a film is being shown. Occasionally a special drawing or sketch might be copied by the class. Usually it is better to get on with the film and place the material on the blackboard later.
15. Students sometimes should be called upon to explain some of the frames.
16. Film strips can be used for motivation, presentation or review.
17. Develop quizzes based on films.
18. Remember, film strips are an aid, not a substitute for the teacher.
19. Use films for their educational value, not for entertainment.
20. Film strips should be integrated into the course of study to coincide with the needs of the majority of the students.

The third aid is not usually considered as an audio visual aid, but it is. That aid is the field trip. It allows students to have audio and visual perception of real objects and experiences. Table 9 presents some considerations in planning a field trip to make sure it is a good audio-visual experience for students.

Table 9: A Checklist for Planning Fieldtrips

Check each item as it is completed.

1. Discuss the possibility of making the field trip with members of the class. Include cost, time, permission. ____
2. Make all necessary administrative arrangements and obtain permission from school authorities. ____
3. Make all necessary arrangments with responsible personnel at plant or institution to be visited. ____
4. Confirm and set all dates and time schedule. ____
5. Make arrangements for transportation. Public carriers should know about large groups so as not to interfere with regular commuters and other travelers. ____
6. Prepare record sheet for collection of money; give receipts. ____
7. Prepare written sheets for instructions for students. ____
8. Make arrangements for sufficient number of escorts. ____
9. Prepare students for trip:
   a. Discuss purpose of trip. ____
   b. Point out highlights to be observed. ____
   c. Discuss conduct during tour and in transit. ____
   d. Discuss possible hazards. ____
   e. Relate trip to course, processes, work, job opportunity. ____
10. Form class into group or groups at arrival. Check attendance. ____
11. Meet host and introduce group. Explain purpose of the visit. ____
12. Listen to instructions given by company guides. ____
13. Encourage students to take notes, make sketches and note questions to be asked. ____
14. Re-group at end of tour; check attendance; express thanks. ____
15. Report to school authorities on return to school. Make note of any important observations made which will help in future. ____
16. Follow-up the visit with a class discussion. ____
17. Prepare key questions to encourage student participation and explanation of highlights of trip.* ____
18. Write an evaluation of the trip as to worth, information gained, student reaction, public relations. ____

Summary

Audio-visual aids can be used to facilitate the learners' attainment of learning outcomes if the aids are planned and produced properly. Review your understanding of this module by taking the checkup below.

CHECK - UP ! ! Answer <u>without</u> referring to the module.

1. What are the three levels of design?

____

____

____

2. What is the biggest mistake that most instructors make about using Adio-visual Aids?

3. If the last row of seats is 150 feet from the screen, how big should the total screen image be? _________

4. Name seven factors that must be considered in producing good media.

____

____

____

____

____

____

____

5. What is a mask, what kind of AV machine is it used on, and what is it used for?

Check your answers on the next page. If you got less than 90% correct, go back and review the module again.

THE CORRECT ANSWERS ARE:

1. What are the three levels of design?

mechanisal

creative

conceptual

2. What is the biggest mistake that most instructors make about using Adio-visual Aids? They do not plan carefully!

3. If the last row of seats is 150 feet from the screen, how big should the total screen image be? 17½ ft. high

4. Name seven factors that must be considered in producing good media.

legibility

format

information rate

layout

emphasis

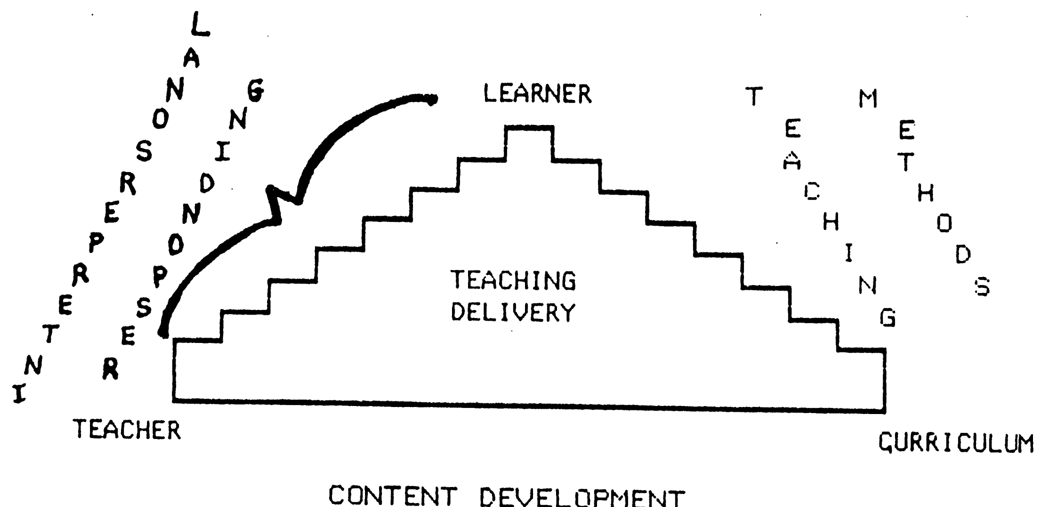
balance

movement

5. What is a mask, what kind of AV machine is it used on, and what is it used for?

covers made of cardboard or file folders to be used in sequentially revealing information on a transparency for an overhead projector

NOTES AND COMMENTS:



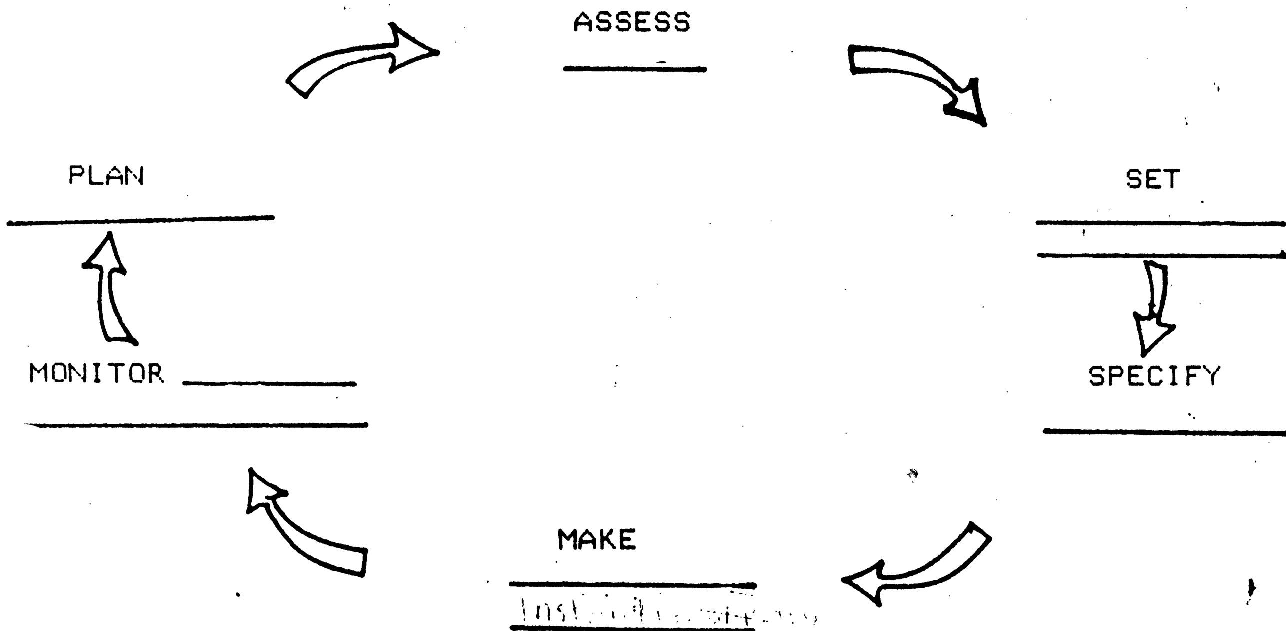
FOUR

INTERPERSONAL RESPONDING

Students' motivation for learning, their adoption of desired professional ethics and values, and their selection of specialties are all strongly influenced by their instructors' skills in interpersonal responding. This section of the manual is designed to teach you a way to assess your interaction with students and to present two responding skills which often need development.

Summary

As a summary, label the model presented below. Answer the questions below the model. If you have difficulty, review this module again.



Curriculum Development Process

A. What are the six phases of the generalized planning model?

1. ____________________ 4. ____________________

2. ____________________ 5. ____________________

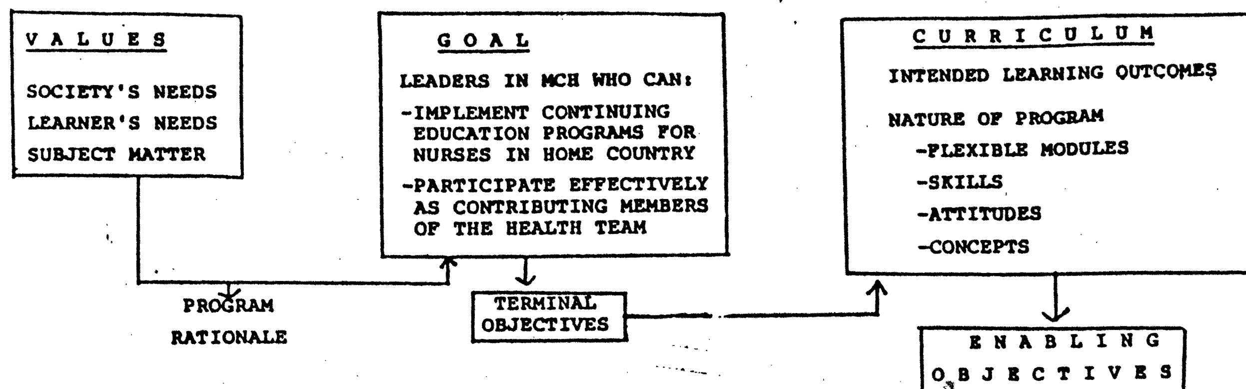
3. ____________________ 6. ____________________

B. Name the three sources of values for curriculum development.

1. ____

2. ____

3. ____



EXAMPLES: Terminal Objectives:

1. The trainee will analyze principles of asepsis and apply to clinical areas as indicated.
2. The professional nurse/midwife will demonstrate those teaching skills appropriate to conducting inservice/professional nurse education.

EXAMPLES: Enabling Objectives:

THE TRAINEE WILL:

1. Identify the fundamentals of the infectious process including techniques of isolation.
2. Identify principles of medical asepsis and apply principles to clinical areas as indicated. Emphasis will be given to preventive aspects.
3. Identify principles of surgical asepsis and apply to clinical areas as indicated, e.g. demonstrate correct technique for surgical scrub, gowning, and gloving.

FIGURE 6: Deriving Curriculum Objectives

NOTES AND COMMENTS:

DEVELOPING SKILLS IN ACCEPTING FEELINGS*

Intended Learning Outcomes

1) Each participant can physically attend to another person.

2) Each participant can recognize the physical cues to feelings that are expressed by others.

3) Each participant can identify feelings and make a response indicating acceptance of those feelings.

MATERIALS

1) This module and a pencil.
2) A partner who is working on this skill, also.

PROCEDURES

Overview:

All humans are emotional creatures; in fact, everyone experiences feelings all the time. Most health care instructors are taught subject matter and teaching methods but have received little or no training in responding to the emotions of their students. Yet, how can learning occur when unrecognized anger interferes; or embarassment blots out all thought; or unacccepted excitement prevents concentration? This module introduces basic skills to help the instructor in a health care training program recognize feelings and communicate acceptance of them in a simple fashion. The skills can be used in patient education, as well.

Principle:

Social-emotional problems take precedence over learning tasks. The teacher facilitates learning by responding to the students' feelings.

---

*This module is based on procedures developed by R. R. Carkhuff, The Art of Helping, (Amherst, MA: Human Resource Development Press, 1972).

ACCEPTING FEELINGS - WORKSHEET #1
Pre-Measure

Directions: For the first four items, circle the response which best accepts the student's feelings. For the other items, write a response to the statement. **Ignore the columns headed "CRITERIA".**

---

1. I feel very alone.
   A. I'm with you.
   B. It's like no one is with you.

---

2. Sometimes I feel like no one likes me.
   A. You feel like no one cares.
   B. I'm sure lots of people like you.

---

3. I wish I had another father.
   A. You'd like to have someone else for a daddy.
   B. Your Dad is a good man.

---

4. I'm embarassed about my GRE score.
   A. They're not so bad.
   B. It makes you feel bad to even mention them.

Item	CRITERIA 1	2	3	4
5. I like you very much.				
6. Sometimes I'm so worried I can't study.				
7. That poem thrills me beyond compare.				
8. I love her so much I can't stand it.				
9. Going to college scares me.				

Total: ________

PRE-TEST FEEDBACK:
Correct answers for Items 1-4: 1-B, 2-A, 3-A, 4-b.
The modal score for untrained professors is 2.
At the end of the module, you will be able to score questions 5 - 9.

Learning Activities

The exercises in this module are quite helpful in learning more about yourself and those with whom you come in contact, especially your students. Some of the exercises will be quite challenging, but all of them are success oriented. In short, they were developed to help you be more effective with your students.

In the classroom situation, the professor is constantly responding to students. When a student tells you something, you are going to respond to him/her. You have no choice as to whether you will respond -- you will. No matter what you say, it is a response of one kind or another. Even if you say nothing, that in itself is a response -- an ignoring response. So the choice is not if you will respond, instead you must choose how you are going to respond.

There are several skills which will help you to choose better ways of responding to students in order to facilitate learning. They are: Attending, Observing, Listening, Identifying Feelings, and Responding.

Attending:

First, you must let the student know you are "Attending" to him/her. While you are observing and receiving cues from students, they are observing and unconsciously receiving cues from you. There are several tasks that you do to tell the student that you are listening or attending to him.

A. The most important thing to remember is to communicate a high energy level to the students. It is a myth to think that a casual and relaxed attitude is best. If you are really interested, you are very alert and your energy level is high. This tells the student that you are able to deal with him and his problem: that you can "listen" to him.

B. Next, you must face the student as squarely as possible. This communicates that you are directing your energy and interest towards him. Also this places you in the best position to observe the student.

C. The third task is to eliminate any activity that might be distracting the person to whom you are listening. This means you must keep your hands free of objects (including books, coins, chalk); don't tap your feet; and in general don't fidgit. Restlessness communicates that you are uncomfortable and this makes the student uncomfortable.

D. A fourth task is to posture yourself to communicate a high level of interest. This might mean leaning forward or taking a step toward the student. This tells the other person that you are going to try to hear everything he or she says. On the other hand, leaning away communicates that you don"t want to be close, that the student is "unattractive" in some way.

E. Finally, and perhaps most important, eye contact. Look at the student (without staring) and observe the many things that are being said non-verbally. This communicates that nothing is going to distract you from listening and insures that what is heard verbally is confirmed by what is communicated non-verbally.

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8888888888888888888888888888888888888888888888888888888888
88                     TRY IT ! !
88
88 Pair off with your partner.  One of you is "person A";
88 the other one is "person B".  Person "A" should tell
88 Person "B" something important about himself.  (If you
88 can't think of anything to share, some possible
88 subjects to talk about are:
88    1. The meal you would choose for your last one.
88    2. Three wishes and why you would choose them.
88    3. What you would change if you could live your
88       life over again.)
88
88 At first, Person "B" should listen attentively while
88 "A" talks.  Then "B" should become more and more
88 inattentive and finally turn completely away from "A"
88 while "A" keeps on talking.
88
88 Then reverse the process. Person "B" talks and Person
88 "A" listens.
88
88 AFTER both of you have had a chance to talk and to
88 listen, discuss the experience:  "How did you feel in
88 the beginning when the other person was attending to
88 you while you talked?  Later, how did you feel while
88 trying to talk to someone who wasn't listening?"
88
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```

Observing:

The response you will make will be based on what you have "heard" from the student, remembering that you "hear" with your eyes as well as your ears. That is, you receive information from the students by observing them as well as by listening to them. (Similarly, students receive responses from you by what they see of you as well as by what you say.) In practice, everyone receives information first by seeing and second by hearing.

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88
88 **ILLUSTRATION:** To make the point as to the strength of this
88 relationship of hearing and seeing, <u>do this experiment:</u>
88 Smile as if you are seeing a long-lost friend. Now, keep
88 your smile on your face while saying, "I hate you."
88 **Notice your feelings** while doing the exercise.
88
8888888888888888888888888888888888888888888888888888888888888888

As you can tell by the above experiment, the physical (which you hear with your eyes) exerts a strong influence on the verbal. Furthermore, the relationship between physical or non-verbal communication and your emotions is so strong that the body will "tell it like it is" even when "it" is not known consciously ... or when you are trying to tell it the way you <u>want</u> it to be.

Therefore, <u>observing physical cues</u> is a rich source of information as to feelings or behaviors. Some hints to help you be a good observer follow.

A. A person's physical appearance tell a great deal about that person before he says the first word. <u>Look</u> in order to <u>listen</u> most effectively.

B. There are many physical cues that tell things, if you will look. You have seen a "tired" look and an "energetic" look. Some other cues to look for are:
   1. <u>Facing away</u>: "I don't want you to see who I really am." In a way, it's as though the person is hiding something from you. Similar behaviors include...
      a. <u>Looking around</u>: "Something makes me uneasy and uncomfortable about looking at you."
      b. <u>Staring at the floor</u>: "I really don't have any directions or energy at all right now."

   2. <u>Developing distractions</u>: (Like foot tapping or twiddling a pencil or cigarette smoking) "If I create a diversion (such as foot tapping) or a smoke-screen (cigarettes) the focus won't really be on me."

3. <u>Leaning away</u>: "I can't get too close right now. It might be too overwhelming."

4. <u>Slumping</u>: "I just don't have enough energy to make it."

8888888888888888888888888888888888888888888888888888888888888888888888888

TRY IT!

1. On the lines below, name 5 revealing behaviors you have seen.

2. Tell what was happening to posture, face, eye contact, and hands for each behavior.

____

____

____

____

8888888888888888888888888888888888888888888888888888888888888888888888888

To summarize, there are four general categories of physical cues to observe:

1. <u>Overall physical posture</u> -- indicates general level of energy and tone or mood. May also indicate characteristic attitudes or expectancies.

2. <u>Eye contact</u> -- indicates person's relationship with others in the current interaction.

3. <u>Hands and face</u> -- indicates emotional meanings of current experiences.

4. <u>Energy level</u> -- indicates general capacity for "handling" or "moving out" in the experiences with which the person is involved.

These physical actions are "cues" to what might be going on in a person's experience. You can't really be led off track by what students do, but sometimes what they say is confusing. For example: Supose you ask a student how his/her day is going and the reply is, "It's great!" But you notice the student's head is hanging low and feet are dragging. Which cues do you trust? -- the physical or the verbal? . . . . That's right! The physical!

Listening:

When you have received visual information from others, you put it with the words they say and this forms the basis for your response. But you must be sure to listen carefully to hear exactly what they say. Don't be mislead by your own expectations for what they will say. You should listen so acarefully that you are able to repeat to yourself, word for word, what the other person said.

TRY IT ! !

Have a friend read some short statements into a tape recorder. The first one should be about 15 words long; the second one about 20 words along, and so on, until the last one is about 50 words long.

Then you listen to the first statement; stop the recorder and write down exactly what you heard. Rewind the recorder and compare what was actually on the tape with what you heard.

Repeat this sequence with each of the other statements your friend recorded. How long was the longest statement that you could repeat exactly?

A good listener can repeat more than 40 words exactly as they were said. If you need to, have your friend record some more statements and practice with them until you can listen and repeat exactly statements of more than 40 words in length.

Identifying Feelings:

The most effective first step in responding to your students is responding to how he/she feels about what he/she is saying. Sometimes you don't tell the other person what his/her feelings are because you aren't really listening; at other times you may not know how to express what you hear. In many cases when listening to someone talk about one thing or another, it is difficult to express verbally just how this person is feeling. As a result, listeners often say things like "I know how you feel" or "I can understand why you feel that way." Well, the reality of such statements is that unless the listener can tell the person what he/she is feeling, then the listener's knowledge of how the other person feels is not of any help to that other person.

The first step in responding to a person's feelings is to identify

them. There are many, many different feelings, but for most practical purposes they can be classified into five basic categories: "Happy," "Sad," "Angry," "Calm," and "Scared." But remember, there are many words that express these same feelings. When responding to students, strive to use the word that most adequately describes their feelings in that moment -- the word that "fits" best.

One help in identifying feelings is to think about how they fit into two different continua. Figure 1 below is the graphic presentation of a grid that can be used to place feelings on both continua simultaneously.

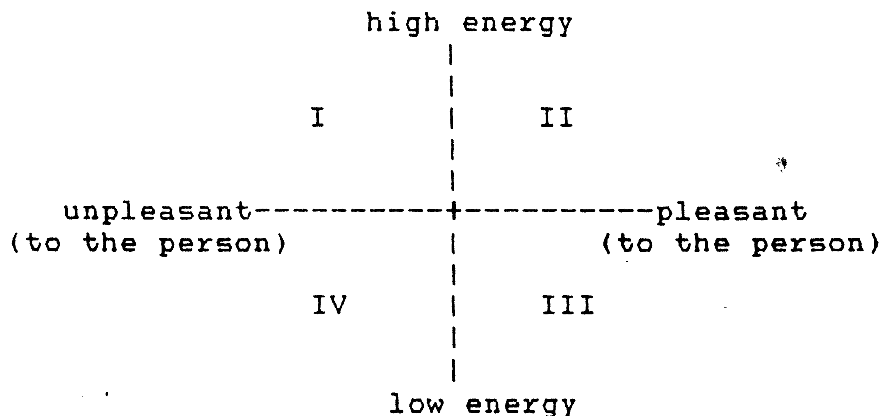


Figure 1: Feelings Classification Grid

One continuum has to do with the energy level that usually accompanies the feeling. That is, some feelings, like "excitement", are usually accompanied by high levels of energy. Other feelings, like "despair", are usually accompanied by low levels of energy. In Figure 1, the energy continuum is represented by the vertical line.

The second continuum is based on whether the feeling is pleasant or unpleasant to the person who is having the feeling. That is, is the feeling one, such as "joy," which most people would <u>like</u> to experience? Or is it a feeling, such as "grief," which most people would <u>not</u> like to have? In Figure 1, above, the continuum for desireability of feeling is represented by the horizontal line.

The two continua, arranged as in Figure 1, describe four quadrants, each of which represent the feelings for one of the basic classes of feelings. Can you match the four quadrants to the four basic classifications which they identify?

8888888888888888888888888888888888888888888888888888888888888888
88 TRY IT !!
88
88 The five classifications are: Happy, Sad, Calm, Angry, Scared.
88 Label each of the quadrants in Figure 1 (above) with one of
88 the five basic classifications. You'll have one left over!
88
8888888888888888888888888888888888888888888888888888888888888888

CHECK YOUR ANSWERS:

I - angry	II - happy
IV - sad	III - calm

Scared can not be classified on the grid because it has dichotomous energy levels: sometimes fear causes you to "freeze" so energy is low; other times it causes you to flee or fight so energy level is high!

In using the grid to help you identify feelings, you determine both the energy level and the desireability of the feeling which the person is experiencing. This, then, helps you know which of the basic classifications of feelings is being experienced.

After you have identified the basic classification, you try to select the exact word which most clearly expresses the intensity of the feeling. For example, if you were expecting a close friend to come to your home, you would be experiencing a pleasant feeling with good energy levels so the classification would be II - happy. If this is a friend you see every day, the intensity would be lower than if the friend was one you had not seen for 10 years. So, for the "everyday" friend, your feeling might be "anticipation" while for the friend you had not seen for a long time, the feeling might be "excitement".

You must also try to identify the exact nature of the feeling. For example, both "rejected" and "lonely" are Quadrant IV feelings. That is, both are low energy, unpleasant to the person emotions. But they have somewhat different natures. "Rejected" includes a context of "being done to" while "lonely" just describes a state of being, without implying how that state came about.

Critical elements of the Instructional Plan can be indicated in the Curriculum. Examine the middle column, entitled "ENABLING ACTIVITIES", in the Curriculum presented on pages 61-65. The activities listed in the curriculum indicate how the instructor plans to present the content or skills relevant to the enabling objective. This column is NOT a complete Instructional Plan, but merely indicates the approach which will be used in the instructional plan. (You will learn how to make instructional plans in a later module.)

Monitoring Actual Learning Outcomes

When the instructional plan is implemented, the instructor will continuously monitor actual learning outcomes. That is, as the students are learning and practicing the content and skills taught, the instructor observes their progress. He/she will adjust the instructional plan as needed to better ensure that the learners are attaining the intended learning outcomes.

Evaluation Plan

The final component of a curriculum is the Evaluation Plan. In this component, the instructor specifies how the success of the curriculum will be evaluated. He/she indicates the evidence that will be accepted as "proof" that the intended learning outcomes have been attained.

Once more, examine the curriculum beginning on page 15. Look at the third column, entitled "EVIDENCE OF MASTERY", on pages 16-20. Compare the expected evidence with the enabling objectives. Are they appropriate? Could a person attain the enabling objective without being able to perform the Evidence of Mastery? Are they complete? That is, if a person performs the evidence of mastery would you then be able to form an adequate judgement as to whether or not the learner had attained the enabling objective?

Results from implementation of the evaluation plan are cycled back into the model in order to revise the curriculum. Thus, curriculum development is a continuous process. As knowledge in the subject matter area is developed by researchers, as the needs of society are identified, as learners change, and as evaluation results are obtained, the curriculum is revised to meet these developments. The process of curriculum development is well named.

888888888888888888888888888888888888888888888888888888888888888
88 TRY IT ! !
88
88 For each of the situations below, first identify the quadrant
88 from Figure 1. Then circle the word that most exactly
88 describes the intensity and nature of the feeling.
88
88 1. You were making some hot tea and picked up the hot pan
88 without using a cloth to protect your hand.
88 Quadrant:__ hurt angry sad embarassed frustrated
88
88 2. You were making some hot tea for your friend. When you
88 picked up the pot, it slipped and splashed tea on your
88 friend.
88 Quadrant:__ hurt angry sad embarassed frustrated
88
8888888888888888888888888888888888888888888888888888888888888888

* CHECK YOUR ANSWERS: *
* 1. I - hurt *
* 2. IV - embarassed *
****

<u>Responding:</u>

After you have identified the feeling word that most clearly identifies the feelings being expressed by the person to whom you are listening, you must respond to the person. In your response you let the person know that you understand how he is feeling. You also tell him that you know what it is he is feeling that way about.

Be sure you don't <u>ask</u> him how he is feeling or what is causing his feelings. You are putting yourself and your understanding on the line so that the person will realize you care enough to have listened carefully and identified both the feeling and the cause of the feeling. Then the person knows you can be trusted to understand and to help.

A good response should have these four characteristics:
(1) It should be a <u>short</u>, but complete, sentence
(2) It should have a <u>feeling word</u> in the sentence,
(3) It should be a statement of the student's perception of <u>his</u> experience. (That is, it <u>reflects</u> the student's feelings; it doesn't <u>ask</u> about them.)
(4) It should be addressed <u>to</u> the student.

EXAMPLES:

BAD: "Did you feel angry?" This says, "I didn't really listen to you."
GOOD: "You're mad about that!" says "I heard and understood you."

Let's see how well you can do in responding to student feelings. The <u>first step</u> is to identify the one word that describes how the person is feeling when he/she makes the statement. The <u>second step</u> is to use that feeling word in a sentence that tells the student you understand the feeling and the situation.

TRY IT ! !

EXAMPLE: A student says to you, "I had a big argument with the head nurse on Ward 1, today!"

1. What one word tells how the student feels?______________
2. Now, use that word in a sentence you might say to the student.____
____

POSSIBLE RESPONSES ARE;

Feeling word might be: angry, mad, ashamed, hurt, upset, proud, unhappy, worried.

Possible sentence: "You're still pretty mad at him."

NOW, TRY THESE !!

1. Student says: "I'm going to cut anatomy lab tomorrow; that Instructor just doesn't like me!"

WORD:__________
SENTENCE:____
____

2. Student Says: "WOW !! I got a hundred on my Chemistry final !!"

WORD: __________
SENTENCE:____
____

3. Student says: "Sometimes I think I'm really stupid!"

WORD:__________
SENTENCE:____
____

```
************************************************************
* CHECK YOUR ANSWERS.  Do your responses mean about the    *
* same thing as the possible responses below?              *
*  1. You're really upset by the way your instructor       *
*     responds to you.                                     *
*  2. That's really something for you to be excited about. *
*  3. You're pretty unhappy with yourself right now.       *
*                                                          *
************************************************************
```

SUMMARY

To summarize what you have learned, go back and score items 5 through 9 on your pre-measure. For **each response you wrote**, ask yourself the four criterion questions specified below. Each question can be answered either "yes" or "no". Give yourself 1 point for a "yes" and 0 points for a "no." Record your points in the space provided on the pre-measure by the columns headed "CRITERIA" at the end of your responses. One column was provided to record the point value for each of the criterion questions.

CRITERIA QUESTIONS: For each response in **items 5 - 9 on the pre-measure**, ask yourself:

1. Was there a feeling word in my answer? YES = 1 NO = 0

2. Did I make a sentence about the student's perception of his/her experience rather than ask a question, give advice, or give reassurance based on my experience? YES = 1 NO = 0

3. Did I make the statement to the youth rather than put it into third person? YES = 1 NO = 0

4. Did I keep it short? YES = 1 NO = 0

After you have scored all four columns for each item on the pre-measure, add your points to get a total score. The modal score for health care professionals on the pre-measure is 5. A perfect score would be 20.

You have now been through all the steps in learning how to increase your accepting of students' feelings. Review the steps as outlined in the program below. Then take the post-measure.

Program for Increasing Acceptance of Feelings

Steps in responding to feelings:
1. Attend to the pupil. Observe physical cues and really listen.
2. Decide on the word that best describes the feeling.
3. Respond with a short statement to the student that includes the feeling word you have selected and refers to the reason for the student's feelings.

ACCEPTING FEELINGS - WORKSHEET #2
Post-Measure

Directions: For the first four examples circle the response which best accepts the students feelings. For the other examples write a response to the statement. **Ignore the columns headed "CRITERIA".**

---

1. Sometimes I think I'm not going to make it.
   A. I'll help you.
   B. You're afraid it's too much for you.

---

2. Sometimes I feel everything is pushing in on me.
   A. You feel really pressured.
   B. You really need a vacation.

---

3. I wish I had another chance.
   A. You're disappointed in your performance.
   B. Opportunity always knocks twice.

---

4. What if I can't make the grade in college?
   A. Oh, you can do it.
   B. Going to college scares you.

Statement	CRITERIA 1	2	3	4
5. I'm so eager and excited -- I just can't wait to get started.				
6. Sometimes I just lie awake and toss and turn.				
7. Bach's music is great! It means so much to me!				
8. I love her so much I can't stand it.				
9. I like you very much, Teacher.				

Total: ________

****

Answers to Post - Measure

Items 1-4: 1-B 2-A 3-A 4-B

Items 5-9: Just as you did on the pre-measure, go back and score items 5 through 9 on your post-measure. For each response you wrote, ask yourself the four criterion questions specified below. Each question can be answered either "yes" or "no". Give yourself 1 point for a "yes" and 0 points for a "no." Record your points in the space provided on the post-measure by the columns headed "CRITERIA" at the end of your responses. One column was provided to record the point value for each criterion question.

CRITERIA QUESTIONS: For each response in 5 - 9, ask yourself:

1. Was there a feeling word in my answer? YES = 1 NO = 0

2. Did I make a sentence about the student's perception of his/her experience rather than ask a question, give advice, or give reassurance based on my experience? YES = 1 NO = 0

3. Did I make the statement to the youth rather than put it into third person? YES = 1 NO = 0

4. Did I keep it short? YES = 1 NO = 0

After you have scored all four columns for each item on the post-measure, add your points to get a total score for items 5 - 9. A perfect score would be 20.

If you got 3 or 4 correct answers for **items 1-4** and a score of 15 to 20 on **items 5-9**, you have done well. You are ready to begin carrying out a program to apply with students your new skills in responding to feelings. You may proceed to the PRACTICAL APPLICATION section of this module.

If you got less than 3 correct items in 1 - 4 or a score of less than 15 on items 5 - 9, you need to **review the module again** before you proceed to applying your skills with students.

****

PRACTICAL APPLICATION:

The following material is a step-by-step program designed to help you apply your new skills in learning situations. Use it to gradually increase the frequency with which you respond to students' feelings.

Week One:

Using a list of feeling categories, list feelings that you observe in your students. List both the variety of feelings and the number of times you see them for one week.

Week Two:

a. Pick a five minute segment in one of your classes once a day.
b. Choose five students with whom you already have a rapport.
c. Observe one of the students you chose each day for the 5-minute segment to determine how he feels, using both verbal and physical cues. Select the one feeling word that most clearly identifies the feelings being expressed during that fice minute period.
d. Observe a different student each day of the week.

Week Three:

a. Repeat steps a-c from Week Two, but at the end of the 5-minute period ach day respond to the student with a short statement. That is, tell him how he feels.
b. Observe results. Are you right or wrong? (YOU WILL KNOW BY THE WAY IN WHICH THE STUDENT REACTS TO YOUR STATEMENT) If you are consistently right, move on to the steps in Week Four. If you are consistently wrong, repeat the steps in Weeks Two and Three.

Week Four:

Repeat steps in Week Three, but increase the number of students you interact with and/or the number of time segments during the day in which you respond to student feelings. Select one of two of the new students to whom you will respond from those students with whom you have had little rapport prior to this time.

HELPFUL HINTS:

When beginning with Week One, try using an audio tape recording of your class to help you identify feelings. Play the tape back and listen to it, trying to identify the feelings that wer present. Recalling pnysical cues can help.

Another thing you might do is to use the tape for assessing your success during <u>Week Two</u>. Tape the 5-minute class segment that you selected. Listen to it again later to pick out more feelings.

The tape recorder can also be used during <u>Week Three</u>. Record your practice sessions and listen to them to check on your accuracy. Listen for feelings expressed; identify them; halt the tape recorder and make an accurate verbal response; then continue listening.

NOTES AND COMMENTS:

EFFECTIVE PRAISE

Intended Learning Outcomes

1. You will recognize and identify the components of praise statements.

2. You will write effective praise statements for various levels of student performance.

3. You will respond orally to students with effective praise statements for various levels of student performance at the rate of at least one complete praise statement per student per day.

Resources Needed:

In order to attain the above objectives, you will need only this module, a pencil, a tape recorder with blank tape or cartridge, and systematic practice of the skills presented. The time required to complete the written portions of the module is approximately 2 hours.

OVERVIEW

There are skills involved in using praise effectively. This module is designed to help you increase your competency in using praise by (1) helping you identify the components of a complete praise statement, (2) giving you practice in constructing complete praise statements, (3) setting some guidelines for the use of praise, and (4) providing you with a plan of systematic practice for applying your praise skills in your teaching.

PRINCIPLE

Praise is an effective way of responding to students. It is that part of interpersonal responding which tells a person what is "right" about his actions or his products. Positive use of praise also rewards students for their actions and encourages the repetition of desirable or growth-producing behavior. Even more importantly, it tells the student that you are "with him"... that you are receiving and accepting him as a worthwhile person.

Before you begin your study of praise, find out your current level of skill. Take the following Pre-test.

PRE-TEST

A. Identifying Praise Statements:

Read the praise situations. Rate each one according to your perceptions as to how effective the praise statement is. Use the following scale:

0 = Poor; not at all effective as praise
1 = Fair; somewhat effective
2 = Good; moderately effective
3 = Excellent; very effective and complete praise

1. ______ You have an unexpected visitor who comes during a demonstration activity. Both you and the classroom are messy. Your visitor says, "How nice you look today".

2. ______ John hates washing up laboratory glassware but when it's his turn, he does it well. The professor says, "John, it's no fun to wash glassware, but you clean them better than any other 2nd year med student.."

3. ______ Jerry's lab notebook is due to be turned in on Friday for checking. Just as you get ready to go home at 4:30, he comes running in with his notebook and gives it to you. You say, "Good, you got it here before I left."

4. ______ As Mary finishes working a long bio-statistics problem, she beams triumphantly at you. You check her work and say, "You really feel good about finishing such a long and hard problem. You did very well on the set-up process -- all your facts are correct and you used the correct sequence. Now all you need to learn is how to do a Chi-Square Analysis and you'll have it all!"

5. ______ Susan was very intent on her experiment during chemistry lab. As she leaves at the end of the period, you say to her, "I noticed your concentration on your work today".

NOW CHECK YOUR ANSWERS TO PART A BY REFERRING TO THE ANSWER BOX ON THE BOTTOM OF THE NEXT PAGE.

B. Constructing Praise Statements:

Students perform an infinite number of specific tasks or actions either for you as a teacher or in your presence. Some examples are: deliver a baby, read aloud, write, solve a problem, spell a word, hold an instrument, straighten a desk, listen attentively,

take notes, answer questions, contribute their ideas, talk in front of a group, suture a wound, jump a rope, deal with a patient politely and respectfully, wash a test tube, measure a chemical, draw a geometrical figure, diagram a cell, take safety precautions, create something that is unique in their eyes, etc. Any specific task or action can be praised.

1. List four specific student actions (other than those above) that are done in your presence.

a. ______________________ b. ______________________

c. ______________________ d. ______________________

2. Refer to the activity you listed in "a" of number 1 in this section of the pre-test. Make up a praise statement for a student who normally does that task or action poorly, but has just done it very well. WRITE YOUR STATEMENT IN BLANK (2), BELOW.

3. Refer to the activity you listed in "b" of number 1 above. Make up a praise statement for a student who normally does that task or action about "average" and has just performed the task about "average" again. WRITE YOUR STATEMENT IN BLANK (3), BELOW.

	F	S	W/H	Total
(2)				
(3)				
			Grand Total	

YOU WILL RECEIVE FEEDBACK ON THIS PART OF YOUR PRE-TEST AFTER YOU HAVE LEARNED HOW TO SCORE PRAISE STATEMENTS.

ANSWERS TO PART A:

1. 0
2. 3
3. 2
4. 3
5. 1

LEARNING ACTIVITIES

Components of Praise

A. Praise is powerful. Helpful praise can change things about your students and yourself. Some things to remember about the power of praise are:

1. It can help students improve their self-image. . .their "can-do" attitudes.
2. It is a powerful tool for changing many behaviors.
3. It encourages students to attempt more things.
4. It can help students make learning gains.
5. It can improve you self-image as a facilitative teacher.

Which of the above possible changes is the most important to you? CIRCLE ITS NUMBER, ABOVE. If there is another reason (than the ones given above) why you have decided that you want to be more effective in your use of praise, indicate it here:

____

```
***********************************************************
               * (Any item you circled is acceptable;      *
               * also any additional  response you made.)  *
               *********************************************
```

B. In order to most effectively use the power of praise, you must systematically make meaningful praise a part of your repertoire of teaching skills. Assign yourself the task of consciously and deliberately looking for behaviors to praise. This means that you must attend to each student and notice accomplishments. A good goal is for each student to receive a complete praise statement at least once each day. If you have several different classes of students during the day, you may not be able to get around to all your pupils each class period; but praise as many as you can and, at the next meeting, praise the ones you missed. In the next 4 sections of this module, you will practice identifying and constructing complete praise statements. These two skills can increase the effective use of praise power to enhance student growth!

C. Sometimes teachers use praise words which are not received by the students as praise. For example, when a teacher mechanically says "good" after each student has answered, the students know that "good" really means "next!". Meaningful, effective praise by

the teacher has three components.

COMPONENTS OF EFFECTIVE PRAISE
1. Recognize Student's Feelings
2. Be Specific
3. Tell <u>How</u> or <u>Why</u> the Action was Praiseworthy

Each of the three components is explained in more detail below.

1. **<u>Recognize the student's feelings about the action</u>.** Remember what you learned in the module on "Accepting Student Feelings." Apply those skills in constructing effective praise statements: <u>Observe</u> physical cues and non-verbal behavior. <u>Listen</u> for tone as well as content of verbal behavior. <u>Identify</u> the student's <u>feeling</u> about his/her performance of the specified task or activity. Then <u>tell</u> the student what you found out.

Examples: "You felt that one was tough!"
"You enjoyed answering that problem!"

What are some feelings <u>your</u> students express about tasks or actions they perform in your classes, on ward-rounds, or in the laboratory?

______________ __________________ ____________________

______________ __________________ ____________________

****
* Responses will vary. Accept any with *
* which <u>you</u> are satisfied. FOR ADDITIONAL *
* FEEDBACK, CHECK THE FEELINGS YOU LISTED *
* WITH THOSE YOUR COLLEAGUES HAVE OBSERVED *
* BEING EXPRESSED BY THEIR STUDENTS. *
****

2. **<u>Be specific when you find something to praise</u>.** Tell the student <u>exactly</u> what it was that you noticed. Make reference to the <u>specific</u> elements of the answer, behavior, or contribution. This lets the student know that you were <u>really</u> attending...that the contribution was important to you. Helpful praise always <u>praises the accomplishment</u>, <u>not</u>

the person. Praise can be for work done, efforts made, or achievements; but it should not be for character. A youth is neither good nor bad because papers are neat, work is skillfull, or courtesy is shown to others.

Example: "John, you can be proud of your very neat paper," not "You're a good man, John, for writing so neatly."

There are many specific things for which you could praise a student.

Examples: 1. Your idea about contraceptives was practical.
2. I liked the systematic way you planned the diagnostic process for that patient.
3. Your third example was a good one.
4. You have your materials with you, ready to begin.

REMEMBER, if you want a student to **repeat** a behavior, notice when he does it and specifically tell him that you noticed it.

LIST THREE SPECIFIC BEHAVIORS FOR WHICH YOU COULD PRAISE A STUDENT. FOR EACH ONE, WRITE A STATEMENT THAT WOULD CONVEY YOUR PRAISE OF THE BEHAVIOR.

Behavior	Praise Statement
______________	________________________________
______________	________________________________
______________	________________________________

****

* Responses will vary. Accept any with which *
* you are satisfied. YOU WILL RECEIVE *
* ADDITIONAL FEEDBACK FOR THIS EXERCISE IN *
* THE NEXT MODULE SECTION. *

****

3. **Tell the student why or how the behavior was worth praising!** By letting the student know exactly why or how the behavior was praiseworthy, you help him internalize the criteria for good performance. Then the student can use those skills when working alone. If you merely evaluate the

answer, "Good!" or "Right!", all that the pupil knows is that you are pleased with the performance. But he may not be sure what was right nor certain of being able to repeat the process.

Examples: "You tied-in very concretely the idea you learned in the lecture with the practical procedure for a caesarian."

"You gave several good logical reasons for your disapproval of Hamlet's actions."

CHECK EACH OF THE PRAISE STATEMENTS YOU WROTE UNDER "C - 2" ABOVE. DID YOU TELL THE STUDENT HOW OR WHY THE BEHAVIOR RECEIVED PRAISE? IF NOT, REWRITE THE STATEMENTS SO THAT THE STUDENT CAN KNOW THE CRITERIA YOU WERE USING FOR JUDGING THE PERFORMANCE.

____

____

____

____

****

* Check your responses by asking *
* yourself, "Are the criteria stated *
* clearly enough so that anyone *
* observing the behavior could use *
* them to make the same evaluation? *
****

D. A complete praise statement contains all three components.

Example: You were uncertain whether you could answer such a tough question but your knowledge of epidemiology facilitated the completion of the formula.

MAKE SURE YOU CAN IDENTIFY EACH OF THE THREE COMPONENTS IN THE EXAMPLE ABOVE. MARK THE EXAMPLE AS INSTRUCTED BELOW.

1. Circle the word that tells how the student felt about the question.

2. Underline the specific thing(s) which the teacher said that the pupil had done.

3. Put ( ) around the criteria for judging the performance.

****

You are uncertain whether you could resolve such a tough question but your knowledge of bio-chemistry assisted your understanding which facilitated the (completion of the formula.)

****

REMEMBER, a complete statement of praise always contains all three components. A good praise statement contains at least two of the three components. Praise statements can be rated on a scale from 0 to 3, depending on the number of components they contain.

GO BACK TO SECTION A OF YOUR PRE-TEST AND MARK EACH OF THE PRAISE STATEMENTS IN THE SAME WAY THAT YOU MARKED THE EXAMPLE ABOVE. THEN CHECK YOUR MARKINGS AGAINST THE EXPLANATION OF THE RATINGS BELOW.

****

Explanation of ratings on Pre-Test,

1. Received 0 because it has no component of praise. The "noticed" behavior was not consistent with the situation so it was obviously ingenuine.
2. Rating of 3 because it contained all three components of praise. See markings of statement, below:

   "John, it seems trivial to wash lab glassware, but you clean them better (than anyone else)."

3. Rating of 2 because it contained two elements. See markings below:

   "Good, you got it here (before I left)."

4. Rating of 3 because it contained all three components. See markings below:

   "You really feel good about finishing such a painstaking problem. You did very well on the set up process--(all your facts are correct and you used the correct statistical sequence). Now all you need to learn ...."

   NOTE: The rest of the statement gives information which Mary can use

```
*            in setting goals for her growth    *
*                                               *
*   5. Rating of 1 because the statement        *
*      contained only one component of          *
*      praise.  See markings:                   *
*                                               *
*      "I noticed your concentration on         *
*      your work, today."                       *
*                                               *
*************************************************
```

E. You are now ready to receive feedback on section B of your pre-Test. DO THE FOLLOWING STEPS FOR EACH OF THE PRAISE STATEMENTS YOU WROTE IN BLANKS 2 AND 3 OF SECTION B OF THE PRE-TEST.

1. Mark each of your praise statements in the same way as you did the example in "D" above. If a statement did not include one or more of the three components of praise, mark only those component(s) which it did contain.

2. Put a 1 under column "F" for each statement in which you recognized the student's feelings.

3. Put a 1 under column "S" for each statement in which you were specific about what you noticed to praise.

4. Put a 1 under column "W/H" for each statement in which you told the student Why or How the performance was praiseworthy.

5. Add up the 1's for each statement to get your Praise Rating. Write each score in the appropriate box under "Total."

6. Add the two statement scores (ratings) to get your Grand Total. Write it in the bottom box. COMPARE YOUR GRAND TOTAL WITH THE MODAL SCORE BELOW.

```
****************************************************************
              * The modal score (the score most often reached *
              * by teachers who have not studied the skills   *
              * of effective praise) for the Grand Total of   *
              * the Pre-Test is 2.                            *
              *************************************************
```

CHECK POINT: As a review, answer these questions:

A. Teachers must be ________________ in using effective praise.

B. Effective praise must.....

1. Recognize the student's ______________________________.

2. Praise _______________ behaviors or accomplishments,

3. Tell __________ or _________ the performance was worthy of praise.

```
*********************************************
*     A. systematic        B. 1. feelings   *
*                             2. specific   *
*                             3. how or why *
*********************************************
```

F. PRACTICE USING THE THREE COMPONENTS OF PRAISE.

Read each situation below. Write an <u>effective</u> and <u>complete</u> praise statement in response to each student.

1. Marsha, a student in academic trouble, has taken a chemistry test. She applied 9 out of 10 formulas <u>correctly</u>. As you hand her paper back you say..."

____

____

2. Charles was unable to do lab experiments today because of a cast on his wrist. He went to the library during lab time. Later, you discover he had zeroxed for you some hard-to-find medical documents you were needing. You say.....

____

____

RATE EACH OF YOUR RESPONSES 0, 1, 2, or 3 BY MARKING AND COUNTING THE COMPONENTS OF EFFECTIVE PRAISE WHICH IT CONTAINED. USE THE SAME MARKING SYSTEM THAT YOU USED IN SECTION "D'.

```
*******************************************************************
             * You should have scored a 3 on each statement. If *
             * not, rewrite statement(s) and put in the missing *
             * component(s).                                    *
             ****************************************************
```

<u>Guidelines for Praise</u>

A. The first guideline for using praise is that helpful praise <u>focuses on the positive</u>. Some things are part right and part wrong. By praising the student for the part he did right, you can (1) give feedback to clarify for the student how far he has come and (2) encourage him to try again.

It's like a glass of water that is only partly filled. If the top of the glass represents the completion of the task, the water level can represent either the <u>success</u> level or the <u>failure</u> level depending on how you present it to the student. You can say, "See how much you've put in" or you can say, "See how far you failed in filling the glass."

When you point out how much he has put in rather than what he didn't do, you help him keep or build a good image of himself. He can always compare what he's done against the task requirements and see what he still has to do. And he knows that he did at least <u>part</u> of it right... he doesn't have to start all over from scratch!!

Example: A 2nd-year med student accidentally destroyed an x-ray slide. You could say, "Might as well throw away the remainder of the exposed slides!" (A FAILURE REPORT!) Or you could say, "I know this incident is embarassing for you but your back-up slide will be especially valuable for you now." (A SUCCESS REPORT!)

CITE AN EXAMPLE FROM <u>YOUR</u> EXPERIENCE IN WHICH A STUDENT'S TASK WAS NOT COMPLETED IN A TOTALLY SATISFACTORY MANNER.

EXAMPLE: ____

____

CONSTRUCT BOTH A <u>FAILURE</u> REPORT AND A <u>SUCCESS</u> REPORT TO THAT STUDENT.

FAILURE REPORT: _____________________________________

____

SUCCESS REPORT: _____________________________________

____

****

* Responses will vary. Accept any with *
* which **YOU** are satisfied. *

****

B. Of course, it is relatively easy to praise correct behaviors. The real test of a teacher is how <u>incorrect</u> responses are handled. In responding to inaccurate answers or inappropriate behaviors, there are four actions you can take.

1. Respond to the student's <u>feelings</u> about the behavior.

Examples: "It took courage to try that one."
"You're mad because you missed one you thought you knew."

2. Give praise for effort.

Examples: "I'm glad you tried such a hard problem."
"Wow! Almost got it! Try it again!"

3. Praise the student for a part of the answer or behavior.

Examples: "Your initial diagnosis of the patient's illness was quite appropriate, but it is important to realize that with this particular disease developing symptomology can change the diagnosis."

4. Give praise for the progress that has been made.

Examples: "You did much better today."
Hey! Two out of three is on the way!"

When responding to incorrect answers or inappropriate behaviors, it is very important to recognize the student's feelings. This lets he student know that, as a person, he's okay even though his particular behavior may not have met the complete criteria set for performance of the task.

In addition to responding to the student's feelings, you should do one or more of the other three actions listed above. By praising for effort or progress, you let the student know that the goal is "growth" and that you recognize that learning is a trial and error process. In other words, you make it possible for the student to be able to risk trying. By giving praise for part of the student's behavior, you focus on the positive rather than the negative aspects of the behavior. This lets him know how close he came to meeting the performance criteria and helps him discover what else he has to do to get it all.

NOW YOU TRY IT. WRITE YOUR BEST RESPONSE TO THE STUDENT IN THE FOLLOWING SITUATION:

Jerry is having trouble with bio-statistics. On the test today, he missed 19 out of 20 problems. As you return his paper, you say....

____

____

RATE YOUR RESPONSE 0, 1, 2 OR 3 IN THE SAME WAY THAT YOU HAVE RATED YOUR EARLIER RESPONSES. THAT IS, MARK AND COUNT THE

COMPONENTS OF EFFECTIVE PRAISE CONTAINED IN THE STATEMENT. FOR AN EXAMPLE OF A LEVEL 3 RESPONSE, SEE BELOW.

> Self-Correcting. Example of a level 3 response:
>
> "It takes a lot of courage to keep trying when *you feel like giving up* because you don't seem to be getting anywhere. But *you kept working and got one* (exactly right)."
>
> NOTE: Although it's not a part of the Praise Statement, this response should be followed up by working out an individual program with Jerry to help him learn the skills he's missing. (See PROGRAM DEVELOPMENT MODULE)

C. If the teacher's praise statements are not *received* by the student as being praise, they fail in their objective. There are three general reasons for failure of praise:

1. Praise that doesn't fit the behavior or how the learner sees himself may make the student uncomfortable. He may even resent it and so-called "bad behavior" may result.

Example: How would *you* feel if you had burned the toast for breakfast and your spouse said, "You sure are a good cook!"

2. Students may feel that praise is not real or not sincere and that someone is trying to manipulate them. Praise should be given as an *earned* reward... *not* as a manipulation device.

Example: Joe would rather play first base than catch. The coach says, "Joe is our best catcher. How about playing that position for us, Joe?"

3. If praise is given mechanically or without meaning a young person learns to mistrust the adult who gave the praise. It is most important for you to *be sincere*. Look for something to praise that you can really mean.. if you don't mean it, the student will know.

Example: Gwendolyn comes to you and says, "I did all the lab experiments assigned for this week plus 3 additional ones. You say, "That's nice," and go on storing glassware without looking up.

A CURRICULUM FOR TRAINING NURSE/MIDWIVES

IN THE DELIVERY OF FAMILY PLANNING METHODS

COURSE RATIONALE

The rationale for this course was based upon a consideration of the needs of the learner and society and the subject matter content relevant to delivery of family planning services.

I. The Learner: Nursing and midwifery personnel who will work in family planning services need to be dedicated, actively involved, and adequately prepared to assume responsibilities intrinsic to their proper roles. They need to be trained to deliver family planning methods to the community. In addition to nursing techniques, they will need teaching, counseling, supervisory, and community leadership skills.

II. Society: The men in a society are often reluctant to allow their wives to benefit from family planning methods and need to be educated to become actively committed to the idea of a planned family. The nurse/midwife trained in Family Planning will be promoting the health and welfare of the family group and thus contribute effectively to the social development of the country.

III. Subject Matter: Content for the nurse or midwife who will offer family planning services should include delivery of different contraceptive methods, counseling techniques, asepsis and care of equipment, methods of sex education, and supervision of auxilliary personnel.

EDUCATIONAL GOALS

I. To provide the hospital and community with a qualified nurse/midwife who is a dedicated, enthusiastic, and responsible family planning practitioner.

II. To ensure a nurse/midwife who works enthusiastically with family planning programs; who is able to perform skills and carry out new techniques in the delivery of family planning services; and who can supervise the necessary auxillary personnel.

III. To provide as family planning personnel, dedicated persons who can teach other nurses and the community about family planning methods.

IV. To develop a person with leadership qualities who is acceptable to the community.

WRITE A BETTER RESPONSE TO GWENDOLYN: ______________________________

____

____

RATE YOUR RESPONSE 0, 1, 2 OR 3 IN THE SAME WAY THAT YOU HAVE RATED EARLIER RESPONSES. YOU WILL RECEIVE ADDITIONAL FEEDBACK AS TO YOUR RESPONSE WHEN YOU TAKE THE POST-TEST.

D. Use a good warm voice tone when telling students the nice things you have noticed about them. Particularly when praising a part of a behavior, it is easy to change praise into criticism merely by your vocal tones and inflections.

E. And, always, when praising, be genuine and honest! Honest praise helps a student know who he is, what is good about himself, and what are some possible alternatives for growth.

Ingenuine praise may provide a momentary "good" feeling for the student but that glow will soon be dissipated as the student discovers that the praised behaviors either (1) are not praised in other settings or (2) do not seem to lead anywhere in achieving further goals. In addition, ingenuine praise communicates complete lack of respect for the student. That is, ingenuine praise carries the nonverbal message, "I"m sorry, but you are so unworthy a person that there is nothing about you or your work or your behaviors which I can find to praise. So, out of pity, I'm going to tell you that you are good even though you're not!"

And, finally, ingenuine praise is not necessary if the teacher is really on the alert and trying to observe attitudes or behaviors for which honest praise can be awarded. It is extremely unlikely that any student can stay in school for a complete day without doing at least one something which is praiseworthy -- even if it is no more than getting to class on time!

A NOTE OF CAUTION:

There is a danger in becoming more effective in your use of praise. That danger lies in the nature of the goals for students which you encourage through your praise. The more effective your use of praise become, the more actively your students will seek to earn your praise. This can, if you are not careful, have the effect of limiting the students in their discovery processes. That is, they may become so focused on doing the "correct" things for which praise is given that they fail to engage in sufficient exploratory activities to discover their own alternatives, directions for growth, and personal possibilities.

You can prevent this limiting effect from happening if you set as one of <u>your</u> goals that you will use praise to help students discover their potentialities. To meet such a goal, you will need to do two things: (1) You must <u>not</u> limit your praise-giving to those instances in which students have attained (or made progress toward) specifically pre-determined "correct" behaviors. (2) You should <u>systematically</u> and <u>frequently</u> give praise for engaging in the processes of exploration. Specifically, you should praise students for such activities as....

showing initiative
expressing creativity
establishing personal criteria for a level of performance which is satisfactory <u>to self</u>
accepting own products as worthwhile and/or expressing joy in them
inquiry beyond the limits of the subject-matter
sharing personal interests with classmate
expressing personal directionalities in learning or discussions
setting personal goals
working independently on projects determined by self
trying something new and different just to see what it's like
making decisions between alternative tasks or ways to do things
rejecting a task or activity as "that's not for me!"
verbalizing their realizations or discoveries about themselves
engaging in thinking-through the relationship of self to another person, place, thing, process or attitude

In short, praise should be a tool for helping students discover as many as possible of their own potentialities. And, remember, praise should be only <u>one</u> of the ways in which you show students that you are accepting and receiving them <u>both</u> as they <u>are</u> and as they can <u>become</u>. This means that you must continuously be aware of who the student is and encouraging of his exploration of where he wants to go. Then, praise can become one among many ways you create a learning environment where adults can both live and learn... a place where they can grow intellectually, with skills in their hands and minds, caring for self and others in their hearts, and joy in their lives.

SUMMARY

READ THE FOLLOWING OUTLINE OF THE MODULE CONTENT. AS YOU READ EACH ITEM, ASK YOURSELF, "Do I understand this? Can I do it?" IF THE ANSWER IS "NO", REVIEW THE APPROPRIATE MODULE SECTIONS.

The components of effective praise are:

A. Respond to feelings
B. Be specific
C. Tell how or why the behavior is praiseworthy.

A Complete praise statement contains all three components.

The effectiveness of a praise statement can be rated on a scale from 0 to 3 on the basis of how many of the components it contains.

Guidelines for using praise include:

A. Focus on the positive

B. Respond to inaccurate behaviors by...
   1. Responding to feelings,
   2. Giving praise for effort,
   3. Praising for a part of the answer or behavior,
   4. Giving praise for progress.

C. Make sure statements are received as praise.
   1. The statement should fit the behavior.
   2. Praise should not be used to manipulate students.
   3. Praise must be sincere.

D. Use a good warm voice tone.

E. Be genuine and honest.

Praise should be used to help students discover their possibilities rather than to limit them to attaining pre-determined "correct" behaviors.

WHEN YOU ARE SATISFIED THAT YOU HAVE MASTERED THE MODULE CONTENT, TAKE THE FOLLOWING POST-TEST TO CHECK ON YOUR MASTERY.

POST-TEST

FOLLOW THE STEPS BELOW TO TEST MASTERY OF THE MODULE CONTENT.

A. Mark and rate the praise statement below in order to check you mastery of the skill of identifying effective praise.

"Great, Gwendolyn! You must have been really excited about the success of your lab experiments! I'm glad you used your initiative and creativity to move ahead into the more difficult experiments."

Rating: ____________________

COMPARE YOUR MARKINGS AND RATINGS WITH THE ANSWERS ON THE LAST PAGE OF THE MODULE.

B. See if you have mastered the guidelines for using praise by filling in the blanks below.

1. When giving praise, you should focus on the ____________.

2. Should inaccurate behaviors receive praise? ____________

3. It is important to make sure that statements are ____________ ____________ as praise by the student.

4. The praise statement should ____________ the behavior.

5. Praise should not be used to ____________ students.

6. Praise must be ____________ or the student will mistrust it.

7. Use a good warm ____________ ____________, when praising.

8. Honest praise helps a student know who he is, what is good about himself, and what are some possible ____________ for growth.

9. ____________ praise communicates lack of respect.

10. It is not likely that a student can stay in school for a whole day without doing something ____________.

11. You can respond to incorrect answers by...

    a. responding to the student's ____________

    b. giving praise for ____________

c. praising for a ________________ of the answer

d. giving praise for the ________________ that has been made.

CHECK YOUR RESPONSES AGAINST THE ANSWERS ON THE LAST PAGE OF THE MODULE.

C. Now check your mastery of the skill needed to <u>construct</u> effective praise statements by doing the following:

1. Refer to #1 or Section B of the <u>Pre-test</u> where you listed 4 behaviors students might do in your presence or for you.

2. Consider the activity you listed as "c" in the <u>pre-test</u> and write a statement for a student who generally performs that task well and has just done it extra well. WRITE YOUR STATEMENT IN BLANK (2), BELOW.

3. Now consider the activity you listed as "d" in the <u>Pre-test</u> and write a praise statement for a student who generally does that task or action poorly and has now done it wrong one more time. WRITE YOUR STATEMENT IN BLANK (3), BELOW.

	F	S	W/H	Total
(2)				
(3)				
			Grand Total	

NOW, MARK AND RATE YOUR RESPONSES IN THE SAME WAY THAT YOU DID IN ORDER TO RECEIVE FEEDBACK ON YOUR PRE-TEST. USE THE MARKING AND TALLYING SYSTEMS EXPLAINED IN <u>SECTIONS D</u> AND <u>E</u> UNDER <u>COMPONENTS OF PRAISE</u>. COMPARE YOUR TOTAL SCORE TO THE FOLLOWING CRITERIA.

6 = Excellent 5= Good 4 = Fair
3 or less = Go back through the module again, or seek help or additional materials for study.

D. <u>Criteria for Passing Post-test</u>:

1. An accurate response to Section A, <u>and</u>
2. A Grand Total of 5 or 6 on Section B, <u>and</u>
3. A score of 13 or 14 correct answers on Section C.

If you met <u>all three</u> criteria, you may continue to the Practical Application section of module.

PRACTICAL APPLICATION

By passing the post-test you demonstrated that you now have the basic skills to use praise effectively. All that remains to be done is to make effective praise a regular part of your responsiveness to students by systematically practicing your skills. This section of the module presents a three-week plan of systematic practice for applying your praise skills in the classroom. USE IT AS IT IS, OR ADAPT IT TO YOUR NEEDS.

Week One:

1. Tape record a half-hour of your classroom instruction.

2. Find the first place on the tape where a student speaks.

3. Listen carefully to your response to the student.

4. Stop the recorder and rate your response to determine whether it was a good praise statement. Use the code letters F, S, or WH to indicate which components of effective praise you included in your response. Count the components to get your rating of , 1, 2, or 3.

5. Find the next place on the tape where a student speaks. Repeat steps 3 and 4. Continue this process until you have rated your whole tape.

6. If you were satisfied with your use of effective praise statements, you do not need to complete the 3-week plan. If not satisfied, continue with step 7.

7. Practice making oral responses to students which are complete praise statements. First, listen to your tape recording with has a PAUSE button will facilitate doing this step.

9. Repeat steps 7 and 8 until you feel comfortable about making oral praise statements which are complete. REMEMBER to follow the Guidelines for Praise as you make your oral responses. Especially be sure to use a warmtone and to be genuine.

10. Now, work at developing your ability to make praise responses instantly and spontaneously. Start the tape at the beginning again. This time, do not stop the tape after the student speaks. Let it keep playing while you respond to the student. The objective is to finish your response to each student in time to listen and respond to the next student. (If you get to know your first tape too well for it to be of value in this exercise, just make another recording of your teaching!) When you reach the speed objective specified above, you are ready for Step 11.

11. Make a "Praise Checklist" to be used in Weeks Two and Three of the Practical Application Plan. Follow the sample form below and make a list for each of your classes. List the names of your students in the far left column of the form.

PRAISE CHECKLIST
for
PRACTICAL APPLICATION

	First Week					Second Week				
STUDENT	M	T	W	TH	F	M	T	W	TH	F

Week Two:

1. Place your Praise Checklist where it will be accessible to you at all times during each class.

2. As you teach, be alert for student behaviors which are worthy of praise.

3. The first time each day that you observe a praiseworthy behavior of a student, (a) respond with a praise statement and (b) place a slash by the student's name.

4. Continue this process until there is a slash by each student's name, indicating that you have praised him.

5. Try to complete the checklist each day. This does not mean that you praise each student only once or that you record every praise statement, but it does mean that each studeti would be praised at least once each day. If you have several different groups of students per day, try to complete the checklist for each group at least twice a week.

Week Three:

1. Continue to keep the Praise Checklist.

2. At the end of each day (or class period), think back through the day. Try to remember the praise statements that you recorded with a slash mark beside a student's name.

3. Mentally rate each statement that you can remember. If you think it was a complete praise statement (including all three components), put a slash in the other direction across the slash already beside the student's name. Thus, you will have an X for complete praise statements and a / for praise statements that you can not remember as being complete.

4. Get your Complete-Praise Ratio. Divide the number of X's by the number of /"s for the day. Write your C-P Ratio at the bottom of the column for that day.

5. Each day, try to increase your Complete-Praise Ratio.

6. On the last day of the week, tape record your classroom instruction for another half-hour.

7. Repeat steps two through five of Week One.

8. Compare your praise ratings this time with your praise ratings from Week One. They should be considerably better.

9. In subsequent weeks, you can repeat the steps for Week Three as many times as you like, until you reach the degree of competency in using effective praise that is satisfactory to you.

10. Periodically during the year, give yourself a PRAISE CHECK-UP! Repeat steps one through five of Week One to keep you on your toes about using Praise.

CHALLENGE: Evaluate yourself on the elements in the Guidelines for Using Praise section of the Module. Then repeat the three week plan but, this time, concentrate on using effective praise in response to inaccurate or inappropriate behaviors. REMEMBER, focus on the positive!

EARNED PRAISE FOR YOU:

You feel relieved to have completed this module with such excellent results. Your last Praise Check-up was fantastic! It incorporated feeling, specificity, and the how and why in a positive manner for every one of your students.

(FROM US, IN A WARM VOICE.)

POST-TEST ANSWERS:

A. "Great, Gwendolyn! You must have been really (excited) about the success of your lab experiments! I"m glad that (you used your intiative and creativity) to move ahead into the more difficult experiments.

Rating: 3

GIVE YOURSELF CREDIT IF YOUR MARKINGS ARE ESSENTIALLY THE SAME AS THOSE ABOVE. IT DOESN'T MATTER IF YOU INCLUDED OR LEFT-OUT AN EXTRA WORD OR TWO.

B. Correct answers are:

1. positive
2. yes
3. received
4. fit
5. manipulate
6. sincere or honest*
7. voice tone
8. alternatives or goals*
9. Ingenuine or insincere*
10. praiseworthy or worth priasing*
11. a. feelings
    b. effort
    c. part
    d. progress

*Either answer is acceptable.

C. Self-correcting.

Criteria for Passing Post-Test:

1. An accurate response to Section A, and
2. A Grand Total of 5 or 6 on Section B, and
3. A score of 13 or 14 correct answers on Section C.

If you met all three criteria, you may continue to Practical Application Section of module. If you did not meet one or more of the criteria, go back and review the module content or seek help from your instructor.

CURRICULUM: FAMILY PLANNING METHODS FOR NURSE/MIDWIVES

TERMINAL OBJECTIVE A: The nurse/midwife is skilled in family planning methods and techniques.

CLASS.* OF OBJ.	ENABLING OBJECTIVES	ENABLING ACTIVITIES	EVIDENCE OF MASTERY
	The nurse/midwife will...		On completion of studies, the nurse/midwife will satisfactorily...
COG	1. review the anatomy and physiology of the male and female reproductive tracts.	1. programmed instruction, lectures, posters, models	1. answer a test on the anatomy and physiology of the male and female reproductive tract.
COG	2. review signs and symptoms of pregnancy	2. reading assignment, questions and answer, slides	2. describe the signs and symptoms of pregnancy. be able to detect by physical exam and a history.
CG/SKIL	3. be able to take a history	3. problem solving & interviewing techniques	3. interview a patient & record her gynecological and obstetrical history.
CG/SKIL	4. be able to do a complete general and pelvic examination.	4. demonstration, clinical practice, person.	4. accurately perform a general and pelvic examination on a patient and describe her findings to an examiner.
COG	5. review and demonstrate aseptic techniques.	5. lecture, clinical practice, film, object	5. correctly set up a sterile tray for insertion of IUD when asked to do so given a wide selection of instruments and supplies.
PSY/MO	6. be able to insert an IUD.	6. demonstration, clinical practice, person	6. correctly insert an IUD under her teacher's observation.

* CLASS. OF OBJ.- Each objective is classified as to its intended outcome. The four classes of objectives are: (1) AFF - Affective, (2) COG - Cognition, (3) CG/SKIL - Cognitive-Skill, and (4) PSY/MO - Psycho-motor.

NOTES AND COMMENTS:

INTERACTION ANALYSIS

WITH FLANDER'S CATEGORIES

Intended Learning Outcomes

1. The trainee will be able to use Flanders' Interaction Analysis for examingin his/her own teaching.

2. The trainee can name, and define the ten Flanders' Categories.

3. The trainee can correctly code a lesson transcript for Flanders Interaction Categories.

Materials Needed: Only this module and a pencil.

Overview:

A great deal of research has been focused on devising some way of describing the things that are happening in the classroom. Dr. Ned Flanders developed an instrument with ten categories that tells: 1) who is talking, 2) what kind of talk it is, and 3) the sequence of the talk. This module is designed to show you how to use Flanders' Categories to examine your own teaching behaviors.

Principle

At least 97% of everything that goes on in the classroom can be determined by verbal behavior, thus Flanders' Categories is effective for use in research and self-evaluation.

LEARNING ACTIVITIES

Flanders' Categories are: descriptive but not evaluative. They tell you: (a) who is talking, (b) type of talk, (c) sequence of talk (what follows what).

The instrument is divided according to who is talking--teacher, student, or no identifiable person (silence and chaos).

Then the sources of talk are further divided. teacher talk is broken down as to whether the teacher is using indirect teaching methods (accepts feelings, praises, uses student ideas, asks questions) or whether she is using direct teaching methods (lectures, gives directions, justifies authority).

Find the Major Divisions in Table 1 and examine them.

Table 1: FLANDERS' CATEGORIES FOR INTERACTION ANALYSIS*

Teacher Talk	Indirect Influence	1. Accepts Feelings: Accepts and clarifies the feeling tone of the students in a non-threatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included.
		2. Praises or Encourages: Praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying, "um hm?" or "go on" are included.
		3. Accepts or Uses Ideas of Student: Clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to Category 5.
		4. Asks Questions: Asking a question about content or procedure with the intent that a student answer.
	Direct Influence	5. Lecturing: Giving facts or opinions about content or procedure; expressing his own ideas; asking rhetorical questions.
		6. Giving Directions: Directions, commands, or orders to which a student is expected to comply.
		7. Criticizing or Justifying Authority: Statements intended to change student behavior from non-acceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.
Student Talk		8. Student Talk: Response; talk by students in response to teacher. Teacher initiates the contact or solicits student statement.
		9. Student Talk: Initiation; talk by students which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.
		10. Silence or Confusion: Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.

*Minnesota, 1959, by Dr. Ned A. Flanders.

Go back and examine Table 1 again. Make sure you know how many categories are in each of these divisions:

Teacher Talk -- Indirect Influence
Teacher Talk -- Direct Influence
Silence or Confusion

Now let's look at the individual categories. Remember that no category is "bad". The good teacher uses whatever category is appropriate to the needs of the situation and to the immediate instructional goals. Flexibility is important -- the ability to hit whatever category is needed by the class. Study the categories in table 1. Look at the pictures that represent the different categories (on pages 174-178).

Be sure to notice the following items:

a) There is a distinction between categories 1 and 3. Category 1 is accepting feelings; Category 3 is accepting or using student ideas.

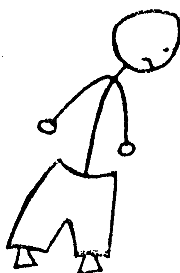
b) Don't confuse verbal tics with genuine praise as coded in Category 2. Verbal tic -- a "praise" type word used so frequently tha it become meaningless, such as "good", "right", "O.K.", etc. Frequently these words are used as "let's move along" signals.

c) Distinquish between categories 8 and 9--Category 8 is a teacher elicited response--called for directly by teacher. Category 9 is a student initiated response--the student wants to respond or to add something to class.

Examine Table 1 and the illustrations of the categories until you are familiar with them. When you are ready, take the checkup on page 179. **If you get less than 17 answers correct,** go back and study the instrument again.

If you get 17 or more answers correct, you are ready to apply your learnings to a real classroom situtation. Table 2 is a transcription of a real interaction that took place in a classroom. Each of the segments between the horizontal lines represents 3 seconds of classroom interaction. Read the whole transcript and think about the pattern of the interaction. Then assign a category number to each segment of interaction in Table 2.

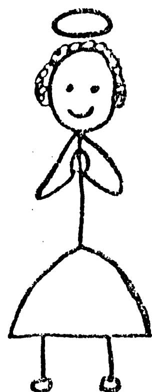
1. Accepts Feelings:



"Please, talk about <u>my</u> feelings!"

<u>Accepts Feelings</u>: Accepts and clarifies the feeling tone of the students in a non-threatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included.

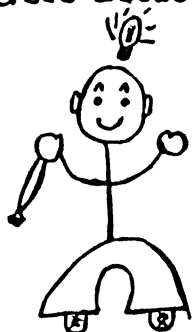
2. Praises or Encourages:



"Praise is just heavenly."
(even a nod and "um-hm" count)

<u>Praises or Encourages</u>: Praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying, "um hm?" or "go on" are included.

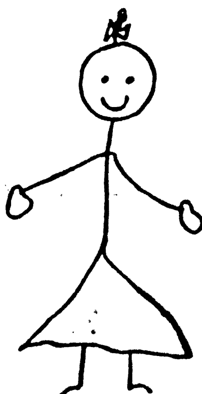
3. Accepts or Uses Ideas of Students:



"Summarize, paraphrase, restate or clarify -
you may even personalize - but, please,
don't critize!"

Accepts or Uses Ideas of Student: Clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to Category 5.

4. Asks Questions:

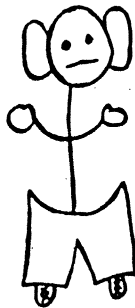


"Ask me questions about content or procedure -
not dumb ones like 'why don't you sit down'?"

Asks Questions: Asking a question about content or procedure with the intent that a student answer.

5. Lecturing:

"I hear you!"



I hear you lecture —
I hear your ideas
" " " "info"
" " " opinions
" " " plans
" " " reviews
" " " explanations
" " you read
" " " answer questions
All day, every day
I HEAR YOU!

Lecturing: Giving facts or opinions about content or procedure; expressing his/her own ideas; asking rhetorical questions.

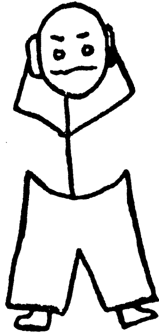
6. Giving Directions



"Please, you're going too fast — I'm trying to get your directions, commands, orders and specifications."

Giving Directions: Directions, commands, or orders to which a student is expected to comply.

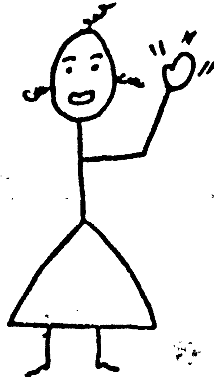
7. Criticizing or Justifying Authority:



"Oh, no, not that again!"

Criticizing or Justifying Authority: Statements intended to change student behavior from non-acceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he/she is doing; extreme self-reference.

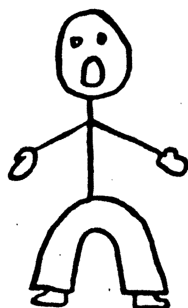
8. Student Talk - Response:



"Just call on me – I know the answer."

Student Talk: Response; talk by students in response to teacher. Teacher initiates the contact or solicits student statement.

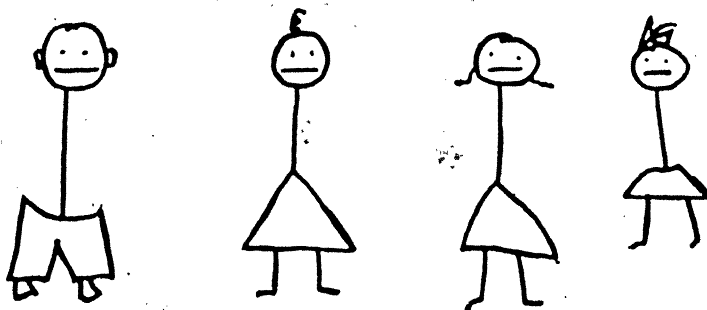
9. Student Talk – Initiation:



Don't call my name - just let me talk!
I've got lots of interesting things to say!

Student Talk: Initiation; talk by students which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he/she did, use this category.

10. Silence or Confusion:



Silence or Confusion: Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer and/or no person can be ientified as "the talker".

Checkup!

Without looking back to Table 1, answer the following questions.

1. Flanders' Interaction Analysis categories are a good way to ________________ what goes on in a classroom.

2. Two categories of student talk are_________ and_________.

3. When students select the topic the category is_________.

4. Three categories of teacher talk which directly influence or control classroom events are_____________,_____________, and______________________________.

5. Four categories of teacher talk which indirectly influence or control classroom events are_______,___________,_, ___________.

7. Write the name of each category beside its proper number below.

1.____________	6________________
2.____________	7________________
3.____________	8________________
4.____________	9________________
5.____________	10________________

Now check your answers against those below.

1. describe
2. response initiation
3. initiation
4. lecturing, criticizing or justifying authority, and giving directions.
5. asks questions, accepts feelings, accepts or uses ideas of students, praises or encourages
6. 1. Accepts feelings
   2. Praises/Encourages
   3. Accepts stu. ideas
   4. Asks questions
   5. Lecturing
   6. Gives directions
   7. Criticizes/justifies
   8. Student talk (response)
   9. Student talk (initiation)
   10. Silence or confusion

CURRICULUM: FAMILY PLANNING METHODS FOR NURSE/MIDWIVES

TERMINAL OBJECTIVE A: (cont'd.)

CLASS OF OBJ.	ENABLING OBJECTIVES	ENABLING ACTIVITIES	EVIDENCE OF MASTERY
COG	7. know the side effects and contraindications of IUD's.	7. lecture, class discussion, chalk board.	7. name 4 side effects and 2 contraindications of IUD's.
CG/SKIL	8. be able to fit and teach the patient how to use the diaphragm.	8. demonstration, clinical practice, model, person	8. correctly teach and fit a patient with a diaphragm under observation.
CG/SKIL	9. be able to teach patients how to use condoms and apermicides.	9. read, discussion, actual object.	9. describe how the condom can be used most effectively.
CG/SKIL	10. be able to teach patients about the rhythm method.	10. individual assignment, tutorial, flip charts	10. describe how to calculate the "safe period" for a patient.
COG	11. know the side effects and contraindications of hormonal contraceptives.	11. programmed instruction, question and answer, slides.	11. list at least 5 side effects, 5 warning signs, and 4 contraindications.
CT/SKIL	12. be able to prescribe hormonal contraceptives.	12. problem-solving setting, discussion, chalk board	12. prescribe the appropriate hormonal contraceptive to patients under observation of instructor.
CG/SKIL PSY/MO	13. know which laboratory tests should be done and be able to draw blood.	13. laboratory, clinical practice, objects	13. correctly draws blood and orders appropriate laboratory tests.

TABLE 2: TRANSCRIPTION OF CLASSROOM INTERACTION

Segment	BIOLOGY	Flanders Category Number
A	Teacher: Good morning class. Today we are going to discuss taxonomy -- the science of naming plants and animals.	
B	Teacher: CAn anyone explain to us why a scientific classification system is necessary?	
C	Student A: Yes, there are many plants and animals in the world. In many cases the same organism is called by a different common name in different localities. Scientific names are not duplicated. They avoid confusion.	
D	Teacher: Very good. Scientific names do avoid confusion and duplication in naming organisms.	
E	Teacher: What is the largest classification group?	
F	Student: The largest group is the kingdom.	
G	Teacher: Very good. All organisms are first placed in a kingdom.	
H	Teacher: Can you name the kingdoms to which all organisms belong?	
I	Student: All organisms belong to one of three kingdoms --animalia, plantae, or protista.	
J	Teacher: Very good. Animals are placed in the kingdom Animalia. Plants in Plantae; and those which are not distinctly plant or animal are placed in Protista.	
K	Student: Would Protista include organisms such as the euglena? It has chloroplasts, but it moves about like an animal.	

Segment	(Page 2) BIOLOGY	Flanders Category Number
L	Teacher: Right. This organism does show features of both plants and animals. In fact, many single-celled organisms were once called Protozoa	
M	Student: It seems like the taxonomists are mixed up. They are changing categories themselves.	
N	Teacher: You feel confused because the category or group was changed. Taxonomists are constantly seeking a better and a more systematic way of naming organisms. Thus, validity is more likely to, and should occur.	
O	Student: I can understand that classification has come a long way since early attempts were made.	
P	Teacher: Right. Why do you suppose the early attempts were expanded to such a degree?	
Q	Student: Well, the categories were too broad. Many organisms were placed together that showed very little similarity in structure.	
R	Teacher: Right. Structural similarity is the basis for grouping and naming organisms.	
S	Student: I am still a bit confused.	
T	Teacher: You still feel uncertain about some groupings. For tomorrow, suppose	
U	we all bring to class a simple example of grouping and how it helps to identify the particular thing in question..	

Now, CHECK your codes with the answers at the end of the module.

USING FLANDERS CATEGORIES

Observe what is going on in a classroom (or listen to a tape recording of the interaction in your own classroom). Every five seconds (or 3 seconds for research purposes) write down a category number to represent what was happening in the classroom during that time. When you are finished, you can count up the number of times each type of category was used. This tells you how much time is spent in what type of activity.

You can also observe the sequence of the numbers to find patterns of interaction which are occurring frequently in your teaching. The following are some typical patterns.

PATTERNS

a	b	c	d	e	f	g	h	i
4	4	4	5	5	5	5	4	4
8	10	10	5	5	5	5	8	8
4	4	8	4	6	6	5	2	9
8	8	9	4	8	10	9	9	2
4	4	9	8	8	7	5	9	3

Things to notice about each pattern are:

a) Question and answer. More likely to be a drill than a discussion.
b) Teacher asked question; student unable to answer, teacher rephrased question; student answered.
c) Teacher asked question; pause for thinking; students answered question. Presence of 9 indicates the question stimulated thinking. The 10 can be indicative of thinking time or of confusion.
d) Lecture; question; answer. Question probably required recall of item in lecture.
e) Lecture; directions; student compliance with directions.
f) Lecture; directions; student failed to comply; teacher criticized students' failure.
g) Lecture interrupted by student question; reply to question.
h) Question; answer; praise; unsolicited participation.
i) Question; answer; unsolicited response; praise; clarifying and building on idea presented.

SUMMARY

Now you have the skills for measuring the interaction--the "What goes on"-- in your classroom. What you do with them depends on you. If you want to use your skills, here are some suggestions.

PRACTICAL APPLICATIONS OF FLANDERS' INTERACTION ANALYSIS

1. Tape record one hour of your classroom interaction and play it over to yourself. Whenever you come to a section that you particularly like, stop and code it on Flanders' Categories. See what it was that you or the students were doing which makes that a section which you feel was a worthwhile learning experience. Then, try to repeat the same kinds of patterns again. You might even plan a lesson just to get at the kind of interaction and tape it for yourself to listen to. CHALLENGE: See if you can reach a particular interaction pattern whenever you wish.

2. Another thing to do with your tape is to look for a section that you did not like. Code it on Flanders' Categories. See what it was that you or the students were doing that made you feel this was not a worthwhile learning experience. What could you have done to have changed the nature of the interaction?

3. Make a column in your lesson plan book called "Flanders' Patterns." When you plan each lesson, also plan the kind of interaction you want to have. Write it down as a Flanders' # pattern....for example:

   4-8-2-4 or 4-9-3-4 or 4-9-1-9 or 5-6-8-9

4. Once a week, plan a CHALLENGE lesson in which you will try to increase the number of responses you make in the indirect areas of Flanders', particularly categories 1, 2, and 3. For each week, pick one category you want to emphasize and then pick one of the lessons you will be teaching that week and set a goal for yourself for that lesson. Set the goal in terms of the number of responses in that category per units of time. For example, you might say: During this lesson, I will make two category 3 responses every five minutes. TAPE RECORD YOUR CHALLENGE LESSON. Listen to it later and code it for Flanders' categories. Did you make your goal? If not, try the same goal on another lesson. If you did make it, you might try for a higher frequency on this category in the next week's CHALLENGE lesson, or you might pick another Flanders' category to work on.

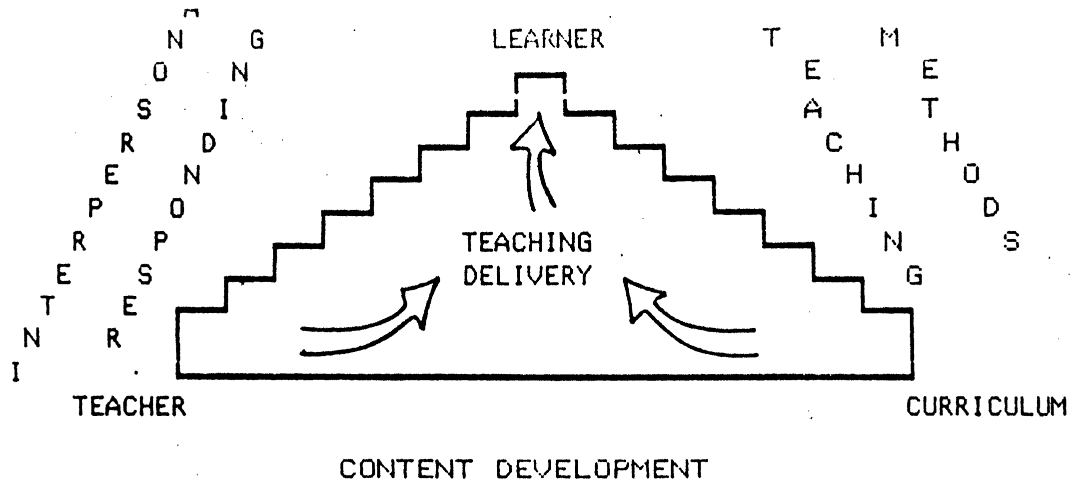
5. Listen for student interaction on your recording of the CHALLENGE LESSON. What kind of student responses followed your use of a category 1, 2, or 3? Were the student responses near the end of the lesson (after you had used several category 1, 2, or 3's) different from those near the beginning? Did the students respond more frequently? Did the students do more thinking? Did the students do more initiation?

ANSWERS TO: TRANSCRIPTION OF CLASSROOM INTERACTION

Segment	BIOLOGY	Flanders Category Number
A	Teacher: Good morning. Today we are going to discuss taxonomy -- the science of naming plants and animals.	5
B	Teacher: CAn anyone explain to us why a scientific classification system is necessary?	4
C	Student A: Yes, there are many plants and animals in the world. In many cases the same organism is called by a different common name in different localities. Scientific names are not duplicated. They avoid confusion.	8
D	Teacher: Very good. Scientific names do avoid confusion and duplication in naming organisms.	2
E	Teacher: What is the largest classification group?	4
F	Student: The largest group is the kingdom.	8
G	Teacher: Very good. All organisms are first placed in a kingdom.	3
H	Teacher: Can you name the kingdoms to which all organisms belong?	4
I	Student: All organisms belong to one of three kingdoms --animalia, plantae, or protista.	8
J	Teacher: Very good. Animals are placed in the kingdom Animalia. Plants in Plantae; and those which are not distinctly plant or animal are placed in Protista.	3
K	Student: Would Protista include organisms such as the euglena? It has chloroplasts, but it moves about like an animal.	9

Segment	(Page 2)	Flanders Category Number
L	Teacher: Right. This organism does show features of both plants and animals. In fact, many single-celled organisms were once called Protozoa.	3
M	Student: It seems like the taxonomists are mixed up. They are changing categories themselves.	9
N	Teacher: You feel confused because the category or group was changed. Taxonomists are constantly seeking a better and a more systematic way of naming organisms. Thus, validity is more likely to, and should occur.	1
O	Student: I can understand that classification has come a long way since early attempts were made.	9
P	Teacher: Right. Why do you suppose the early attempts were expanded to such a degree?	4
Q	Student: Well, the categories were too broad. Many organisms were placed together that showed very little similarity in structure.	8
R	Teacher: Right. Structural similarity is the basis for grouping and naming organisms.	5
S	Student: I am still a bit confused.	9
T	Teacher: You still feel uncertain about some groupings. For tomorrow, suppose	1
U	we all bring to class a simple example of grouping and how it helps to identify the particular thing in question..	6

NOTES AND COMMENTS:



FIVE

TEACHING DELIVERY

Effective teachers deliver skills and knowledge to learners. The difference between the effective and the poor teacher is how well they can integrate content development, lesson planning, teaching methods, and interpersonal responding into a learning process in which the student becomes engaged.

Good teaching delivery facilitates the student's movement through the three phases of learning: **Exploration** of the relationship between self and the content to be learned, **Understanding** of the content and where the learner is compared to where he/she needs or wants to be, and **Action** to get from where they are to the goals appropriate for them. Each of the two modules in this section present a strategy for integrating content, diagnosis of the learner, goal-setting for or by the learner, and sequential steps to accomplish the goals established. In short, each module is a recipe for teaching delivery.

NOTES AND COMMENTS:

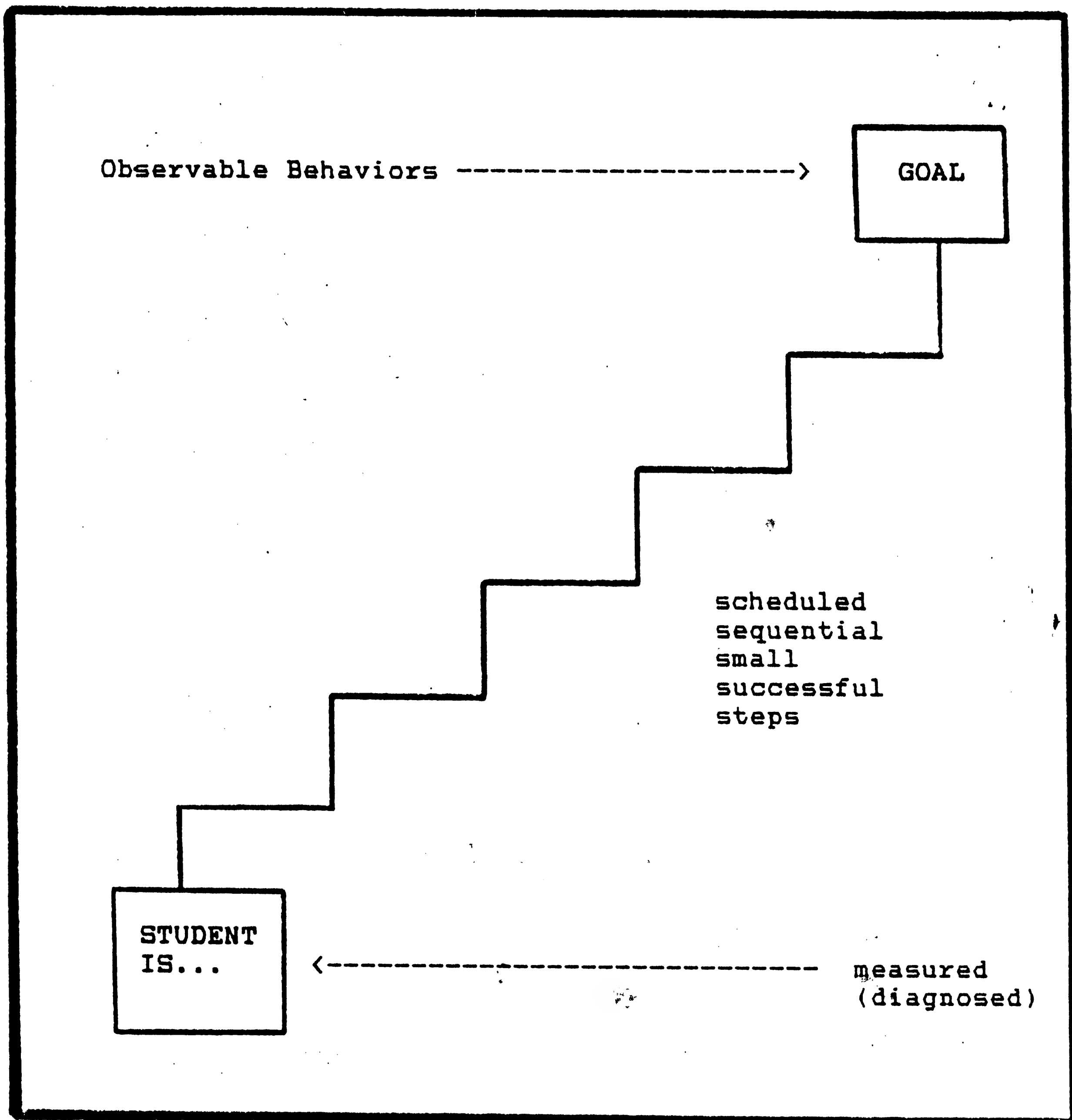


FIGURE 1: The Program Development Process

CURRICULUM: FAMILY PLANNING METHODS FOR NURSE/MIDWIVES

TERMINAL OBJECTIVE B: the nurse/midwife communicates effectively with patients and other health workers.

CLASS OF OBJ.	ENABLING OBJECTIVES	ENABLING ACTIVITIES	EVIDENCE OF MASTERY
	The nurse/midwife will...		On completion of studies, the nurse/midwife will satisfactorily...
CG	1. Know the data necessary to include in a comprehensive history from each patient.	1. class discussion, class handout.	1. when asked, the nurse/midwife explains the important data required for a complete patient history.
CG/SKIL	2. use appropriate interviewing techniques to guide collection of information from each patient.	2. problem-solving, class discussion, person.	2. when observed, the nurse/midwife uses appropriate interviewing techniques for each patient.
CG/SKIL	3. be able to identify and prioritize psycho-social aspects of pregnancy and family planning.	3. problem-solving groups, discussion, films.	3. when given a case history, the nurse/midwife identifies and prioritizes the patient's problems.
CG/SKIL	4. be able to counsel patients to select and accept the best suited contraceptive method.	4. lecture, class discussion, film, person.	4. when given a case history, the nurse/midwife correctly decides which methods of family planning are contraindicated.
AFF	5. value listening and responding to patients' feelings and values.	5. training in listening and responding skills.	5. respond after listening to other person in simulated interviews.

Intended Learning Outcomes:

1. The trainee understands the criteria for developing a program.

2. The trainee can develop a program for reaching a skill within own area of expertise.

Resources Needed:

1. This module, paper, & pencil.
2. A partner or buddy who is working through this module, also.

OVERVIEW

A program is necessary whenever you want to obtain a goal. In terms of teaching, programs normally are thought of as the systematic means of delivering a skill successfully. This means that, first you have to know where where the student is -- what skills he/she now has. Second, you have to know where you want the student to go -- what goal should be reached next. The bridge between these two points is a good program. (See Figure 1).

My goals for this module are (1) to present you with with some discriminations about how to develop a program, (2) provide some practice in Program Development, and (3) give you the opportunity to develop a program and put it into practice.

PRINCIPLE:

In the broader sense, programs are systematic plans for reaching a desired goal. Thus, the skills to be developed in this module can be applied in many areas of your life.

LEARNING ACTIVITIES

The first thing is to work through some programmed material on how to develop a program. You should know the characteristics of a good program when you have finished.

How To Develop a Program

DIRECTIONS: Cover this worksheet with another piece of paper. Slide the cover paper down to reveal the numbered statement and question. Stop at this sign, * * * * *, and write your answer in the blank in the sentence above the * * * * * *. After you fill in the blank, slide the paper to check your answer. Then, continue on through the program.

1. The first principle of program development is to define what a program is. A program is any means used to reach a goal. The best program is one where each step moves systematically toward the goal. Systematic programs allow you to know at each step how close you are to the goal.

The most systematic means for achieving a goal is the best ______________________________.

* * * * *
program

2. The second principle of program development is to choose a goal. A goal tells you where you want to go. A goal also lets you know where you are. A goal will help you develop your program.

A systematic program should be designed to achieve a__________.

* * * * *
goal

3. The third principle of program development is to make clear to everyone the reason why the goal is worthwhile. The reason helps you to understand how the goal fits into the big picture. The benefits make clear why the program is necessary.

Systematic programs that work toward goals are done for reasons that should be made __________________to everyone concerned.

* * * * *
clear

4. The fourth principle of program development is to describe the goal in terms of observable behavior. All goals must be defined in terms of observable behavior. Without observable behavior there is no way of determining whether or not you reached the goal.

Systematic programs that work toward goals must be described in terms of behavior that can be __________________by anyone.

* * * * *
observed

5. The fifth principle of program development is to select the behaviors that lead to the goal. All goals are made up of separate behaviors you can observe. Observing the goal helps you select the behaviors that make it up.

Systematic programs work toward goals that have behaviors you can______________ through observation.

* * * * *
select

6. The sixth principle of program development is to rank the behaviors in terms of degree of difficulty. Difficulty ranges from the least difficult to the most difficult behavior. Behaviors are ranked in order to determine the steps leading to a goal.

Systematic programs that work toward observable goals begin by ranking behavior in terms of how_______________ they are.

* * * * *
difficult

7. The seventh principle of program development is to begin with the least difficult behavior. Beginning with the least difficult behavior increases your probability of succeeding. In addition, the least difficult behaviors lay the blocks upon which the more difficult behaviors are built.

Systematic programs that work toward observable goals begin with the behaviors which are ranked ___________difficult.

* * * * *
least

8. The eighth principle of program development is to repeat specific behaviors over and over until mastered. The principle of repetition insures that the skill is learned. The principle of repetition insures that a sound foundation is laid for more difficult tasks.

Systematic programs that work toward observable goals_________ behaviors over and over until they are mastered.

* * * * *
repeat

.... NOTE: Repetition does not mean "drill". It means that the student continues to work on the same skill in a variety of contexts and with differing instructional approaches until it is mastered. For example: in reading, a student should never be advanced to a new level until he has mastered 95% of the sight vocabulary of the previous level. ....

9. The ninth principle of program development is to review all previous behaviors upon the mastery of each new behavior. This principle of review allows you to identify any weaknesses in previous learnings. The principle of review also enables you to strengthen and reinforce the foundation by retraining.

Systematic programs that work toward observable goals depend upon constantly ______________ those behaviors which have been learned.

* * * * *
reviewing

.... NOTE: Review does not mean just a drill or a question and answer framework. It means that the exercise of the skill at each succeeding higher level incorporates the skills of the previous levels so that they remain fresh and provide the opportunity for diagnosing any weaknesses. ....

10. The tenth principle of program development is that advancement to the next most difficult behavior is dependent upon mastery of all simpler behavior. This principle of advancement only after mastering simpler behavior is the key to successfully achieving goals. The principle of advancement insures that the student has the skills necessary to learn the next most difficult behavior.

Systematic programs that work toward observable goals ____________ to new behaviors only after the mastery of all previous behaviors.

* * * * *
advance

11. The eleventh principle of program development is to conclude the program with the mastery of the most difficult behavior. The mastery of the most difficult behavior includes the mastery of all simpler behaviors, thus reaching the goal.

Observable goals are best achieved by __________ of behaviors determined by systematic programs.

* * * * *
mastery

Practice:

Now let's develop a program together. We just apply the principles of program development in a systematic step-by-step manner.

Step 1. Choose a goal.

As an example, say that the skills we are going to teach are baseball skills. We know a young boy who wants to play Little League ball but he has no skills. As a matter of fact, he is relatively unco-ordinated but we have plenty of time. . .six

months to help him get ready for the next season. By "ready," we mean that he will have a good chance of making the local team. Let's write his goal in measurable terms--so we can know when we have reached it. One way of doing this is to state the goal in terms of an equation.

For example: Baseball Skills $\geq$ Little League Standards.

> This is read:
> Baseball skills are "greater than or equal to" Little League standards.

When the ball season comes and he tries out for the team, we can tell how successful our program was. If it was successful, he should have skills that put him on a par with most of the boys going out for the team.

Step 2. Make the reasons clear.

Example: If you want to make the team, you will need to learn certain skills.

Step 3. Describe the goals in terms of observable behavior.

Example: Boy can hit a ball pitched to him within the "strike" zone, 1 out of 3 times.

Step 4. Select behaviors that lead toward the goal.

Examples:

1. Bend body and knees in crouch sufficient to lower height by 5"
2. Hold Bat at trunk height.
3. "Swing through" levelly
4. Feet placed square to home plate
5. Eyes on the ball

Step 5. Arrange behaviors in order of difficulty

Examples:

1. Place the feet
2. Bend the the body,
3. Hold the bat,
4. Keep your eyes on the ball,
5. "Swing through" levelly.

Step 6. Decide which behavior to start with. It should be the least difficult behavior in terms of the individual and the sequence of behaviors necessary to reach the goal. It should be the sub-skill which the individual can master most readily.

Example: How to bend the body. (In this case, the individual already knows how to place his feet properly so it is not necessary to teach this step.)

Step 7. Plan how you will teach the behavior (or sub-skill). Be sure to include demonstration of the step. Provide "think-steps" so the student can know the criteria for successful accomplishment. Design exercises so the student can practice the skill.

Example: Activities for teaching boy how to bend body include:

1. View films of famous batters
2. Trace center of body lines in still pictures of famous batters
3. Teacher demonstrates position
4. Student assumes position; teacher adjusts position
5. Give "Think Step" : should feel "low" but not bother breathing or cramp muscle freedom

Step 8. Tell how you will know when the student has mastered the sub-skill.

Example: Student assumes position in front of post marked off in inches. When student can assume crouch on command without needing help to obtain correct posture and top of students head is 5 inches lower than his height when standing erect, he has mastered behavior.

Step 9. Repeat steps 6, 7, and 8 for **each of the behaviors** leading toward the goal.

Step 10. Have the student demonstrate mastery of total skill. The program is never completed until the student can demonstrate mastery of the total skill to the levels specified in the goal equation.

That completes the program. Those ten steps are the complete process of program development. It's a simple but very powerful process. Used systematically it can greatly increase learning.

Personalized Practice

Now you are ready for individual practice. You will develop a program for teaching a skill to a colleague.

Remember:

A. Since you will be teaching a professional colleague, he/she will probably already know the skills you have in your occupation. Therefore, try to select a skill from your personal areas of expertise that you think most of your colleagues won't already have.

B. You'll have only a maximum of five minutes in which to teach your skill, so select a small skill -- one that can be mastered in five minutes.

C. Develop your program carefully. Plan your steps so each is small.

D. Be sure you go through all of the steps in developing your program. Table 1 lists them for you.

Table 1: Steps in Program Development

1) Select a goal.
2) Explain why that goal is relevant to the student,
3) Describe the goal in observable behaviors,
4) List the behaviors leading toward the goal,
5) Rank the behaviors from least to most difficult,
6) Select the behavior with which to start your program,
7) Decide on your procedure for teaching the starting behavior,
8) Tell how you will know when the student has mastered the starting behavior.
9) Repeat steps 6, 7, and 8, until all the behaviors leading to the goal have been mastered.
10) Have student demonstrate mastery of the whole skill.

NOW DEVELOP A PROGRAM TO TEACH A SMALL SKILL TO A COLLEAGUE. WRITE YOUR PROGRAM ON PAGE 200. AFTER YOU HAVE DEVELOPED THE PROGRAM, TEACH IT TO YOUR COLLEAGUE. HOW WELL DID HE/SHE MASTER THE SKILL YOU TAUGHT?

Circle one: Very well Fair Poorly

Another Kind of Program

The next step in learning to use program development is to make sure you understand the ten steps well enough to use them in all kinds of programs. A program of a different kind is outlined below for you. This program is **not** a teaching program; instead it is a personal action program to accomplish a desired goal. Read the program and then answer the questions about it.

Example Program:

GOAL: To set up an inservice training program for continuing education in reproductive health for Medical Officers in the South Pacific.

RELEVANCE: Health care delivery services can not be centralized so the Medical Officers are often isolated and have few opportunities for updating their skills.

GOAL IN OBSERVABLE BEHAVIORS:
1. Curriculum written and printed
2. Course in progress with medical officers in attendance
3. Improvement in statistics relating to maternal and peri-natal mortality

BEHAVIORS LEADING TOWARD GOAL:
1. Writing up program
2. Setting up steering committee
3. Establish curriculum
4. Getting funds
5. Writing proposal to Funding Agency
6. Organizing faculty
7. Getting support from regional health ministries
8. Giving "Welcome" speech on first day of first course
9. Budgeting travel costs for participants
10. Arranging facilities for training and housing

RANK ORDER OF BEHAVIORS LEADING TOWARDS GOAL:

1, 3, 2, 5, 7, 6, 4, 9, 10, 8

OUTCOME MEASURES:

1. Post-test taken by participants
2. Attendance of participants
3. Improved mother and child mortality statistics

ANSWER THESE QUESTIONS:

1. Which of the the ten steps listed in Table 1 were not used in the program above?

____

2. What does this program have that takes the place of Step 10?

____

3. In Step 5, the behaviors were not ranked from least to most difficult. In what kind of order were they ranked?

____

4. Since this is not a learning program, Step 7 is not exactly appropriate as it is written in Table 1. How could you rewrite Step 7 to indicate what the writer of this program should do in order to begin implementing the program?

____

____

5. Are each of the steps as identified in this program small enough to be successful? Explain your answer.

____

____

CHECK YOUR ANSWERS AGAINST THESE:

1. Steps 6,7,8,9,10 are not used.
2. Outcome measures
3. Chronological order
4. Decide on your procedure for accomplishing the starting behavior.
5. Probably not, as the steps are very large. The person developing this program may need to write sub-programs to accomplish some of the "behaviors" specified.

SUMMARY

The program for this lesson was to increase your skills in program development. If I was successful, you were able to develop a program to teach the skill you selected. If you were successful in developing a good program, the person you taught was able to demonstrate mastery of the skill you presented.

Remember, a program is only as good as the skill level which the student exhibits after he has completed the program.

CURRICULUM: FAMILY PLANNING METHODS FOR NURSE/MIDWIVES

TERMINAL OBJECTIVE B: (cont'd.)

CLASS. OF OBJ.	ENABLING OBJECTIVES	ENABLING ACTIVITIES	EVIDENCE OF MASTERY
AFF	6. believe in the importance of a referral system.	6. lecture, class discussion, slides, overhead projector.	6. given a collection of patient histories to determine their depositions, the nurse/midwife will refer all that need referring.

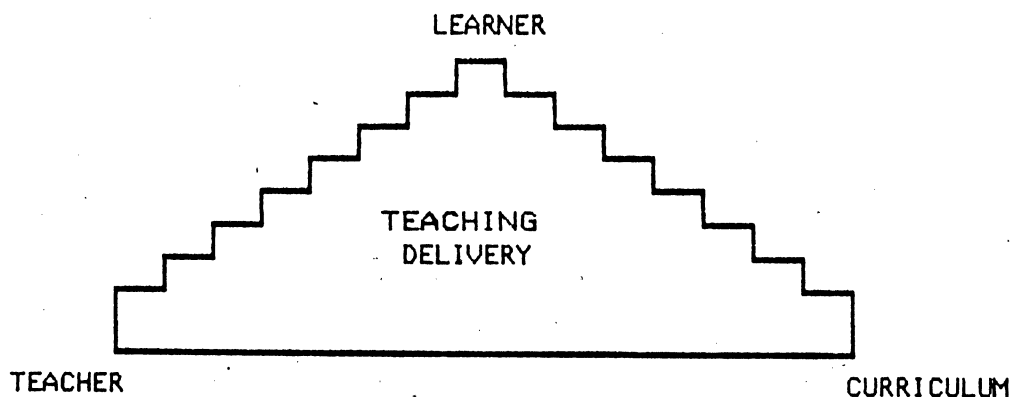
TERMINAL OBJECTIVE C: The nurse/midwife will understand the importance of accurate record-keeping and research in family planning programs.

CLASS. OF OBJ.	ENABLING OBJECTIVES	ENABLING ACTIVITIES	EVIDENCE OF MASTERY
	The nurse/midwife will...		
AFF	1. value the importance of making and maintaining accurate records.	1. discussion, clinical practice , record forms.	1. given a patient to interview for the purpose of history-taking, the nurse/midwife accurately records the information.
CG/SKIL	2. be able to make and maintain clear and accurate records for the use of other health workers.	2. clinical practice, demonstration posters, forms.	2. the nurse/midwife writes her information legibly so that other health workers know what she has written and places information appropriately and sequentially on proper forms.

ONE

OVERVIEW

Teaching is a management act. That is, it involves the characteristics and interactions of several components, all of which have to be managed by the teacher if effective learning is to occur. The relationships among these components can be visualized as follows:



That is, effective learning occurs when the teacher delivers appropriate content that meets the needs of the learner for skills development. In order to do that, the teacher has to engaage the learner in the learning process by managing the interactions

PROGRAM DEVELOPMENT WORKSHEET

Goal: ____

Why goal is
relevant: ________________________________

____

Describe goal in observable
behaviors: ____________________

____

____

List Behaviors leading toward goal.

____

____

____

____

____

____

____

Now, go back and rank order from least to most difficult.

Evidence of Mastery to be required:

____

____

ADDITIONAL PRACTICE & SKILLS DEVELOPMENT

For additional practice and skills development, including ways to systematicatically reinforce attainment of each step, see R. R. Carkhuff, How to Help Yourself: The Art of Program Development. Amherst, Massachusetts: Human Resource Development Press, 1982.

PROBLEM-SOLVING MODULE

Intended Learning Outcomes

1. The participant identifies the three phases of problem-solving.

2. The participant comprehends appropriate teacher and student behaviors for each phase of problem-solving.

3. The participant works out personal problems through all three phases.

Resources Needed:

1) This module, pencil, paper
2) A colleague who is also working through the module.

OVERVIEW

All learning occurs in three phases: Exploration, Understanding, and Action. Problem-Solving is a special kind of learning activity or learning situation. Therefore, it also has these three phases: Exploration, Understanding, and Action. To illustrate how these phases are developed, a problem will be proposed, you will suggest solutions to that problem, and your solutions will be used to bring out some concepts about Problem-Solving and to develop some Problem-Solving skills.

PRINCIPLE

Problem-solving is a process of determining which of several alternative solutions or plans of action is the most desireable one to pursue. The process involves specifying both the various alternatives and the criteria which must be used in deciding between them. It is useful both as a teaching technique and as a tool in making decisions in any aspect of functioning. In a sense, it is a process of goal-setting. Thus, you will find the skills developed in this module to be valuable to you as a teacher and as a person.

First of all, however, let's identify your current concepts about Problem-Solving. Take the Pre-Measure now.

****

PRE-MEASURE OF PROBLEM-SOLVING CONCEPTS

A. Circle answer you feel is best.

1. All problems can be solved basically in the same way:

True False

2. To solve any given problems you should always:
a) Ask advice of others.
b) Find the easiest answer.
c) Seek options systematically.

3. Students in any class in school should be taught:
a) To ask a variety of people for problem-solutions.
b) To solve their own problems.
c) To ask adults for the correct solution.

4. All problems have only one correct solution:

True False

B. Match the three phases of Learning to the following kinds of Problem-Solving activities by writing "Ex" (for Exploration Phase), "U" (for Understanding Phase), or "A" (for Action Phase) in the blank in front of the activity.

_____ Teacher responds to ideas
_____ Students propose solutions
_____ Teacher helps formulate values
_____ Students gather specific information

****

* The best answers to these questions are: *
* (1) true, (2) C-seek options *
* systematically, (3) B-to solve their own *
* problem, (4) false, and (5) Ex, Ex, A, Ex, *
* U. As we continue in this module, you *
* will learn why these answers are best, how *
* to solve your own problems, and how to *
* teach students your skills. *
****

LEARNING ACTIVITIES

Three Phases of Problem Solving

In Problem-Solving, the three phases of learning occur in terms of

three levels of solutions to the problem. In the Exploration phase, the goal is to identify as many alternative solutions as you can think of. In the Understanding phase of Problem-Solving, you will be dealing with feasible solutions. These are the solutions from among the possible ones that are useful within the context of the particular problem. The last level of solutions is that of desirable solutions. These are the potential choices for action. . .and, of course, determining the desirable solution is the beginning of action.

To model the sequential steps involved in Problem-Solving, we are going to solve a problem together. The first phase of Problem-solving is the Exploration phase.

Exploration Phase

This is the problem situation. There is a man standing on the bank of a river. He wants to be on the other side of the river. How can he get across?

DISCUSS POSSIBLE SOLUTIONS WITH YOUR BUDDY. LIST THE PROPOSED SOLUTIONS IN THE FIRST COLUMN OF THE FORM BELOW, IGNORE THE OTHER COLUMNS FOR RIGHT NOW.

Suggested Solution	Reason	Criteria
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		

All done? Maybe not!! Read the 4 comments below and then see if the two of you can add any possible solutions to your list.

1) The answer doesn't have to be sensible or reasonable... just a possible solution.

2) Any answer is okay. The wilder a solution you can think of, the better it is.

3) Try some really crazy ways. How about an antigravity belt to help you float across? Or turn around and go all the way around the world in the other direction till you get on the other side of the river.

4) This activity was done with a group of high school students and they came up with 25 solutions. Their teachers came up with 27.

NOW GO BACK AND SEE WHETHER THE TWO OF YOU CAN ADD ANY POSSIBLE SOLUTIONS TO YOUR LIST.

Great! Your ideas are really exciting.

The first part of this activity was the first phase of Problem-Solving: Exploration. Its purpose -- to identify alternatives or to expand possible options or solutions. We have now determined the possible solutions and completed the **Exploration phase** for this problem. It was designed to illustrate two things about Problem-Solving:

1) You will get a great deal more involvement from your students if you, as the teacher, do not limit the possibilities.

2) And your students will begin to believe a very important thing about learning -- that their ideas are important.

This means that in structuring a Problem-Solving situation as a learning activity, you must propose a problem to your students that has more than one possible solution. You also must let your students know that any possible solution -- no matter how wild -- is an acceptable one during the exploration phase of Problem-Solving. They have to know that you will accept their contributions before they will be willing to propose them to you. Therefore you must establish a climate of trust and mutual respect and use Flanders 3 behaviors (accepting students' ideas) in your responses to the students' proposed solutions.

Understanding phase:

In the second or Understanding phase the feasible solutions are identified.

In determining which of the possible solutions are feasible ones, you get into information-gathering activities. This is the stage at which the students go to the library or carry out action research to determine which of the solutions will work. I am going to give you some more information about the example problem and then we will look further at the proposed solutions.

> The gentlemen is standing beside a river in Texas in the mid-1800's.
> He is an advance scout for a pioneer wagon train.
> This is a shallow but broad river located in a dry terrain where only brush and grass grow.
> The man is alone.
> He is the first scout ever to come to this river.
> He has a riding horse with him.

Look at your list of solutions and see if some of the possible ones can be eliminated to leave only the feasible ones.

CROSS OUT THE SOLUTIONS ON YOUR LIST THAT ARE NOT FEASIBLE. FOR EACH ONE YOU MARK OFF, WRITE A WORD OR TWO IN THE REASONS COLUMN TO INDICATE WHY YOU MARKED IT OFF. For example:

Solution	Reason
~~helicopter~~	not invented in the 1800's

CAN YOU ADD SOME OTHER FEASIBLE SOLUTIONS IN THE LIGHT OF THE INFORMATION PROVIDED ABOVE? IF SO, DO IT NOW.

This completes the Understanding Phase. It had two parts:

1) Gathering information to provide a basis for (a) determining which of the possible answers were feasible (or useful) ones and (b) stimulating new feasible solutions.

2) Revising list of solutions by eliminating non-feasible solutions and proposing new feasible ones.

Action Phase

In the Action Phase, you will determine which of the feasible solutions are desirable ones. Desirable solutions are those that fit both the context of the problem and the values (or criteria) of the Problem-Solver. Not all feasible solutions are desirable. For example, a feasible solution to the population explosion would

seem to be compulsory governmental measures to limit the number of children a woman can bear to two children. But this is not a very desirable solution to many people. We always seek among the feasible solutions for the one that we desire--the desirable solution. A desirable solution is determined on the basis of values we hold. For example, what are some of the criteria that enter into many people's rejection of the solution of compulsory government measures to limit family size?

DISCUSS WITH YOUR PARTNER THE CRITERIA OR VALUES RELATED TO THE SOLUTION OF COMPULSORY GOVERNMENT MEASURES.

In order to determine desirable solutions for our hypothetical river-crosser, we have to know what criteria are going to operate in the problem-solving situation. What might be some of his criteria which would determine his selection of a way to get across the river? Remember, he is a scout for the wagon train and where he goes the wagons will eventually need to go.

DISCUSS CRITERIA WITH YOUR PARTNER AND LIST THEM ON A SEPARATE SHEET OF PAPER. DID YOU INCLUDE THESE POSSIBLE CRITERIA?

Personal safety, possible passage for wagons, needs limited effort, time, can do alone (doesn't need help). If not, add these to your list of criteria.

In terms of your criteria, which of the identified feasible solutions would be desirable for the scout?

LOOK AT THE SOLUTIONS LEFT WHICH REMAIN IN THE FORM ON PAGE 203.
(1) DISCUSS THEM WITH YOUR PARTNER.
(2) ELIMINATE SOLUTIONS WHICH DO NOT MEET ALL THE CRITERIA YOU LISTED. AS YOU CROSS OFF A SOLUTION, INDICATE THE CRITERIA IT FAILED TO MEET BY WRITING IT IN THE COLUMN HEADED "CRITERIA".
(3) TRY TO COME TO A CONSENSUS AS TO WHICH ONE OR TWO MIGHT BE DESIRABLE SOLUTIONS, KEEPING IN MIND THE CRITERIA LISTED.

This third or Action phase of Problem-Solving, had two parts, also:

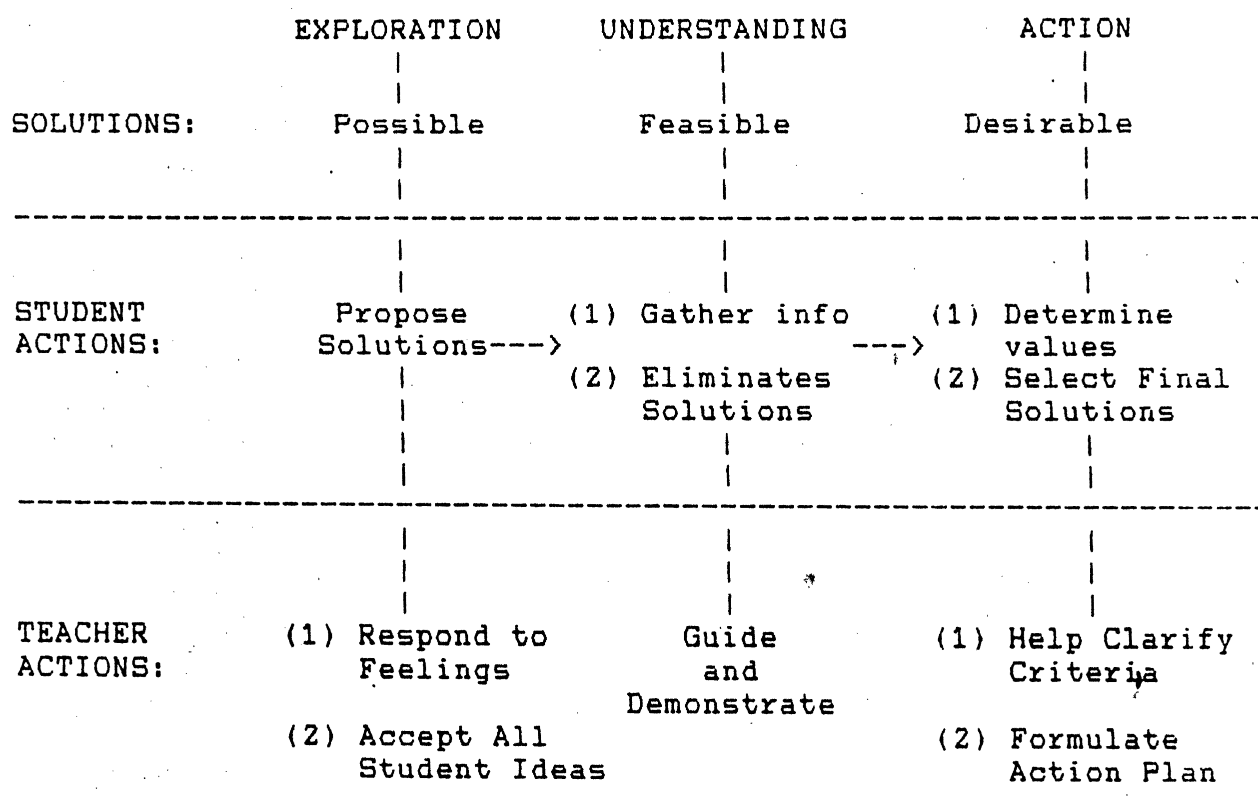
1) Determining what values of the Problem-Solver operated in the situation.

2) Using the identified personalized criteria to determine which of the **feasible** solutions were also **desirable**.

Summary of Problem Solving Phases:

Now, lets summarize what we have done so far. Compare Figure 1 to the explanation below it.

Figure 1: PROBLEM SOLVING PHASES



In the Exploration phase of Problem-Solving, the professor encourages students to propose all possible solutions. The students propose solutions and you, as the teacher, accept them. In the Understanding phase, feasible solutions are determined. The students gather information about the problem context and you help them use the information to determine which of the possible answers were feasible ones and to come up with new feasible solutions. And in the Action phase, the purpose is to decide on a solution to put into action. Help the students set up value criteria and use these values in selecting the desirable solution--the one they will carry out.

In terms of specific teaching behaviors, this means that in the first phase you respond to the student's proposed solutions with feeling statements and Flanders' 3 behaviors (accepts student ideas). In the second phase, you help them put together the information necessary to fully understand both the problem and the merits of the proposed solutions in terms of their feasibility. This requires the teaching skills of praising and questioning in addition to accepting student feelings and ideas. And in the

third phase, you demonstrate how to determine what criteria are important to them as solvers of a particular problem by listing and weighing applicable personal values. After the students have determined the desirable solution, you help them formulate and carry out a plan of action.

Systematizing Problem Solving

These problem solving skills can be systematized by utilizing a problem-solving worksheet to carry out phase three. After all possible alternatives have been listed, and then narrowed down to several feasible solutions, transfer to this sheet to complete the work.

Let's use a worksheet to complete the problem about the man crossing the river. **First**, what was the problem? It should be listed at the very top of Worksheet #1.

EXAMINE WORKSHEET AND FIND PROBLEM.

Second, remember the feasible solutions (alternatives) that you had remaining at the end of the understanding phase. List those solutions at the tops of the columns. We've done some for you!!

EXAMINE WORKSHEET AND FIND SOLUTIONS. ADD ADDITIONAL ONES FROM YOUR LIST.

Third, the values criteria of the problem-solver should be listed in the left column. We've done some for you.

EXAMINE WORKSHEET AND FIND CRITERIA. ADD SOME FROM YOUR OWN LIST.

The **fourth** step is to apply the criteria to the alternatives. Examine each alternative (solution) and see whether it will satisfactorily meet the values or criteria.

a. If it meets a value **well**, give it a check-mark. (✓).
b. If it does it so-so, give it a slash (/).
c. And if it does it poorly or might even prevent meeting that value or criterion, give it an X.

EXAMINE THE APPROPRIATE MARKINGS FOR EACH ALTERNATIVE AND CRITERIA ON WORKSHEET #1. COMPLETE SHEET FOR YOUR ITEMS.

These symbols begin to provide a good picture of the relative desirability of each of the feasible solutions. The **fifth** step is to sharpen the picture by changing the symbols to quantities. Assign +1 for each check, 0 for each slash, and -1 for each X.

This has been done for you on Worksheet #2.

COMPARE WORKSHEET #1 AND #2. THEN CHANGE ALL SYMBOLS ON WORKSHEET #1 TO NUMBERS ACCORDING TO THE INSTRUCTIONS:

✓ = +1 / = 0 X = -1

Finally, the **<u>sixth</u>** and last step is to total the scores for <u>each</u> alternative.

COMPARE THE TOTALS AT THE BOTTOM OF WORKSHEET #2 WITH THE NUMBERS IN THE COLUMNS. DO TOTALS FOR WORKSHEET #1.

As you can see, the scores now indicate which of these solutions are the best in terms of the criteria listed. According to the scores on Worksheet # 2, fording the river on horseback is the best way for our problem-solver to get across the river. This solution enables him to quickly and by himself find a way which the wagons can also use. The only drawback is that it is not a perfectly safe way.

If you **have ties** or if you are **not satisfied** with the solution identified, you can do one (or more) of four things:

1) Go back and identify the **most important value** to you. Give double scores to an alternative on this value (for example a +2 or a -2 instead of a +1 or a -1).

2) See if there is a **value or criteria** you should have listed and did not. If you find one, list it, assign scores for it, and re-total your alternatives.

3) See if there is <u>another</u> **feasible** solution you left out.

4) See if you can **combine elements** of two of the feasible solutions to get a better one.

CURRICULUM: FAMILY PLANNING METHODS FOR NURSE/MIDWIVES

TERMINAL OBJECTIVE D: The nurse/midwife uses basic teaching methods to deliver health education to the patient.

CLASS OF OBJ.	ENABLING OBJECTIVES	ENABLING ACTIVITIES	EVIDENCE OF MASTERY
	The nurse/midwife will...		Upon completion of studies, the nurse/midwife will satisfactorily...
CG/SKIL	1. be able to make effective use of visual aids.	1. lecture, demonstration, variety such as posters, slides.	1. the nurse/midwife will make and use visual aids to teach a patient about the IUD.
AFF	2. value using the language that the patient understands.	2. discussion, clinical practice, person.	2. after a given counselling session with the nurse/midwife, the patient is interviewed to confirm her understanding of the topic.
CG/SKIL	3. use simple group teaching techniques.	3. lecture, clinical practice, chalk board, person.	3. the nurse/midwife will be observed to effectively conduct a small group of women to understand the meaning of family planning.
COG	4. know how to make use of the media in delivering health education.	4. lecture, seminar, film or slide/tape.	4. when asked, the nurse/midwife can describe 2 ways in which the media can be used to promote family planning methods.

PROBLEM-SOLVING - WORKSHEET #1

PROBLEM Need to get on other side of river

	FEASIBLE SOLUTIONS OR ALTERNATIVES			
VALUES OR CRITERIA RELATED TO THE PROBLEM SOLUTION(S)	swim	ford on horse-back	build bridge	
personal safety	X	X	✓	
wagons can follow	X	✓	✓	
can acomplish alone	✓	✓	/	
can do quickly	✓	✓	X	
TOTAL SCORES:				

/ = Positive = +1   / = Neutral = 0   X = Negative = -1

PROBLEM-SOLVING - WORKSHEET #2

PROBLEM Need to get on other side of river

VALUES OR CRITERIA RELATED TO THE PROBLEM SOLUTION(S)	FEASIBLE SOLUTIONS OR ALTERNATIVES			
	swim across	ford on horse-back	build bridge	
personal safety	X -1	X -1	✓ +1	
wagons can follow	X -1	✓ +1	✓ +1	
can acomplish alone	✓ +1	✓ +1	/ 0	
can do quickly	✓ +1	✓ +1	X -1	
TOTAL SCORES:	0	+2	+1	

/ = Positive = +1 / = Neutral = 0 X = Negative = -1

Using the Problem-Solving Matrix in Teaching

The problem-solving worksheet and procedure are often referred to as the problem-solving matrix. The potential of this problem-solving worksheet procedure for making personal and group decisions is obvious. However, it is also very useful in teaching. It can help to focus student research and to foster critical thinking about a problem.

For example, suppose you want students to learn a preferred treatment strategy. The best way to make that learning permanent is to have them work through the critical thinking process involved in determining indicated treatment for various symptomologies of an underlying condition. Of course, since you want them to learn a particular strategy, you give them that problem to work through.

Let's see how it might work. Suppose you have taught the students how to use the problem-solving matrix. Then you might pose this problem for them:

> Given a pregnant patient with bleeding and abdominal pain, what would you do?

You could then go through the exploration phase of having the students propose treatment strategies. Or you might give them the strategies already recorded on a PS matrix. Or you could give them blank matrixes and have them do research to determine feasible strategies.

Similarly, you could have the students propose the criteria to be used in determining the most desireable strategy, have them do research to discover what factors should be taken into consideration, or give a PS matrix with the criteria you want them to use already recorded upon it.

After identifying the treatment strategies and criteria, you might have a PS Matrix something like Worksheet #3. Now, the students have to apply the criteria to the alternatives.

COMPLETE WORKSHEET #3 BY APPLYING THE CRITERIA TO THE ALTERNATIVES. TABLE 1 SUMMARIZES THE STEPS IN COMPLETING THE WORKSHEET.

As you can see from doing the worksheet yourself, the students will have to discover the implications of each treatment strategy for each criteria in order to complete the matrix. This again means more research and study. By the time they have worked through the matrix and found the preferred treatment, they will never forget it.

In addition to learning the preferred treatment, however, the

students will also learn a process of critical thinking that they can apply to many aspects of their professional functioning. It will also be useful to them in their personal lives.

PROBLEM-SOLVING - WORKSHEET #3

PROBLEM Given a pregnant patient with bleeding and abdominal pain, what would you do?

VALUES OR CRITERIA	FEASIBLE SOLUTIONS OR ALTERNATIVES			
treatment must be appropriate to:	put to bed with ice pack	perform laparotomy	induce abortion	wait and see
stage of gestation				
status of foetus				
general health of the mother				
amount and nature of bleeding				
abdominal findings				
emotional state of patient				
TOTAL SCORE:				

/ = Positive = +1 / = Neutral = 0 X = Negative = -1

Table 1: Steps in using Problem-Solving Worksheet

<u>After</u> you have selected the problem, listed all possible solutions, and eliminated all solutions that are not <u>feasible for you</u>, then do the following:

1. Write the problem at the top of the worksheet.

2. Transfer the feasible solutions (or alternatives) to the "Alternatives" columns on the worksheet.

3. Under Criteria list the values that are important <u>to you</u>.

4. Examine each alternative by each criterion. Assign these rating symbols:

   / = meets the particular value well
   / = does "so-so"
   X = meets value poorly or prevents meeting the value or criterion.

5. Change symbols to quantities:

   / = +1
   / = 0
   X = -1

6. Total your scores for each alternative.

7. If you have ties or if you are not satisfied with the solutions identified, you can do one of **four** things:

   a. Go back and identify the **most important value** to you. Give **double scores** to an alternative on this value, (for example a +2 or a -2 instead of a +1 or a -1).

   b. See if there is a <u>value</u> you should have listed and did not. If so, list it, assign scores for it, and retotal your alternatives.

   c. See if there is <u>another</u> feasible solution you left out.

   d. See if you can **combine elements** of two of your feasible solutions to get a better one.

NOW TRY IT ON YOUR OWN.

Select a problem or decision which you have to make currently.

1. Write the problem on worksheet #4 (the last page of the module).

2. On scrap paper write all the possible solutions you can think of, whether they are feasible or not.

3. Next, on the basis of your particular situation, eliminate all the solutions that are not in some way or other feasible for you.

4. Then transfer the feasible solutions to worksheet #4.

5. Complete the worksheet. The steps for completing the problem-solving matrix (worksheet) are summarized for you in Table 1.

If you need help, see your instructor. You may also share your work with others, if you like.

When you have completed this activity to your satisfaction read the summary. Then take the Post-Measure.

****

SUMMARY:

Remember, there are three phases of problem-solving activity: Exploration, Understanding, and Action. Teachers and students behave differently in each phase.
The Problem-Solving Checklist summarizes the activities the teacher must perform in each problem-solving phase. Read it now as a summary of the problem solving process. Use it later to help you plan, carry out, and evaluate a problem-solving activity with your students.

After you have read the problem-solving checklist, take the post-measure to see how much you remember of what you have learned.

PROBLEM-SOLVING CHECKLIST

Plan and carry-out a problem-solving activity with your class during the next course you teach. Evaluate your activity below:

I. CHECK EACH ONE OF THE PROBLEM-SOLVING STEPS THAT YOU CARRY OUT

EXPLORATION PHASE:

_______ Propose a problem that has more than one correct solution.

_______ ENCOURAGE students to come up with many solutions, including really wild ones.

_______ RESPOND to students' proposed solutions with feeling statements and acceptance of their ideas.

_______ Keep a list of solutions propose.

UNDERSTANDING PHASE:

_______ Guide the students in gathering information about the problem context.

_______ Help the students relate the information they gathered to the possible solutions they have identified.

_______ Show the students how to use the information to determine which of the possible answers are feasible ones and/or come up with new feasible ones.

_______ Keep a list of the identified feasible solutions.

ACTION PHASE:

_______ Help the students determine the values of criteria which operate in this particular problem-solving situation.

_______ Instruct them in using the values (criteria) to determine which of the feasible solutions are desirable ones. (THIS MAY BE DIFFERENT FOR DIFFERENT STUDENTS).

_______ Help them formulate and carry out a plan of action based on the desirable solution they have identified.

PROBLEM-SOLVING CHECKLIST
Page 2

II. Evaluate each phase of the activity.

	Exploration	Understanding	Action
1. Level of student involvement (High, Medium, or Low) in each phase.			
2. Identify any problems which arose in any phase.			
3. How can you prevent such a problem next time?			
4. What were particularly good results of the activity in any phase?			
5. Did you find the activity stimulating in each phase?			

POST-MEASURE OF PROBLEM-SOLVING CONCEPTS

A. Circle answer you feel is best.

1. All problems can be solved basically in the same way:

   True

   False

2. To solve any given problems you should always:

   a) Ask advice of others.

   b) Find the easiest answer.

   c) Seek options systematically.

3. Students in any class in school should be taught:

   a) To ask a variety of people for problem-solutions.

   b) To solve their own problems.

   c) To ask adults for the correct solution.

4. All problems have only one correct solution:

   True

   False

B. Match the three phases of Learning to the following kinds of Problem-Solving activities by writing "Ex" (for Exploration Phase), "U" (for Understanding Phase), or "A" (for Action Phase) in the blank in front of the activity.

_________ Teacher responds to ideas

_________ Students propose solutions

_________ Teacher helps formulate values

_________ Students gather specific information

PROBLEM-SOLVING - WORKSHEET #4

PROBLEM____

VALUES OR CRITERIA	FEASIBLE SOLUTIONS OR ALTERNATIVES			
TOTAL SCORE:				

/ = Positive = +1   / = Neutral = 0   X = Negative = -1

SPECIFYING LEARNING OUTCOMES

Intended Learning Outcomes of this Module:

1. The participant can differentiate among (a)intended learning outcome, (b) evidences of mastery, and (c) behavioral objective.

2. The participant can identify 4 categories of learning outcomes: cognitions, affects, psychomotor/perceptual skills, and cognitive skills.

3. The participant can write intended learning outcomes and associated evidences of mastery and can turn these into behavioral objectives, when indicated.

Resources Needed

1. This module, paper, and pencil.
2. A copy of the curriculum for your academic program.

OVERVIEW

This module is intended to teach you how to specify the outcomes you intend learners to achieve in your courses. You will learn:

a. to diferentiate between intended learning outcomes, evidences of mastery, and behavioral objectives.
b. to recognize four different kinds of learning outcomes
c. to write intended learning outcomes, evidences of mastery, and behavioral objectives.

PRINCIPLE

Specifying clearly the intended learning outcomes of your teaching simplifies lesson planning and teaching. Such clearly stated intended learning outcomes supply the criteria for selection of both content and the learning activities with which to implement that content. They also facilitate communication of the learning goals and your expectations of students, thus encouraging students to focus their efforts upon desired learnings.

LEARNING ACTIVITIES

Major Classes of Outcomes

An **intended learning outcome** is the anticipated end product of teaching and learning. Intended outcomes of learning can be divided into two major classes: Skills and Non-skills.

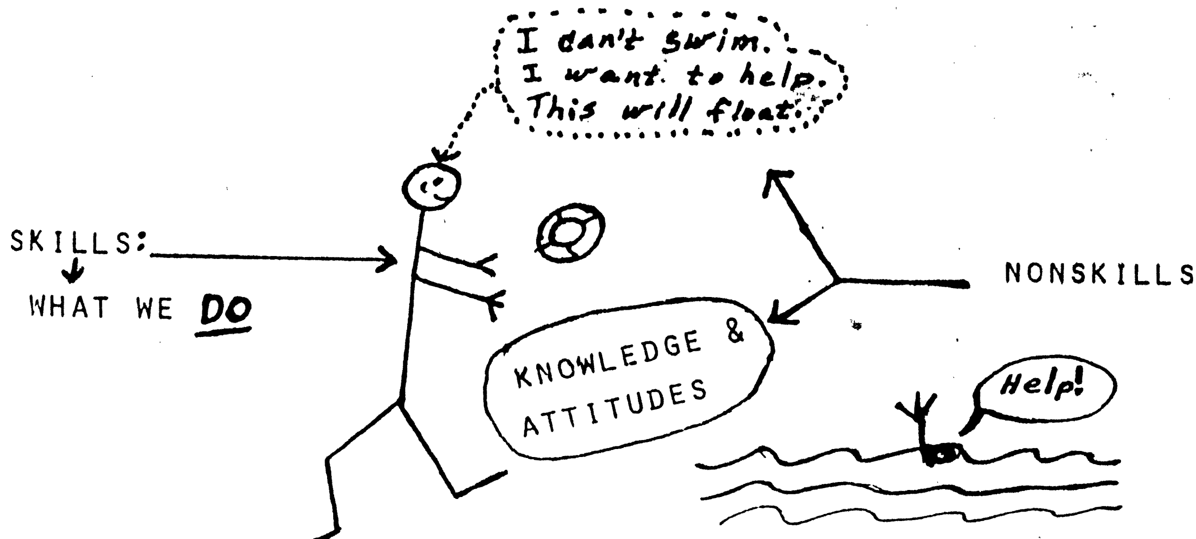
SKILLS - outcomes in which the student becomes able to do something. Skills include mental abilities such as problem-solving, interpretation, analysis and application as well as physical abilities such as bicycle riding, throwing a ball, or typing 60 WPM.

NONSKILLS - outcomes in which the student learns facts, concepts, and ideas or acquires values. There are two categories of non-skills:

A. Conceptual Aspects (knowing facts or concepts, understanding theory or principle)

B. Affective Aspects (having specified values, feelings, attitudes, inclinations)

The following diagram illustrates these relationships.



****

TRY IT !

Identify each of the following items as a skill or a non-skill.
Use this code to mark the items: S=Skill N=Non-skill

______1. Recognize and name types of surgical instruments
______2. Believe nursing is not just a female thing
______3. Can prepare patient for operation
______4. Can put on sterile gloves
______5. Understands importance of sterile operative area

****
* 1=N 2=N 3=S 4=S 5=N *
* 4 correct = Very good *
****

NON-SKILL ILO'S

There are two categories of intended learning outcomes which are not skills:

Cognitions = ideas, facts, generalizations. There are 5 sub-categories of cognitions. Table 1 presents the categories and examples.

Table 1: Five Sub-Categories of Cognitions

Sub-Categories	E X A M P L E S	
FACT:	That is Mars.	This is a chair.
CONCEPT:	Mars is a planet.	These are chairs.
PRINCIPLE:	Planets circle a sun.	Chairs have four legs and a backrest
RELATIONSHIP:	Gravity keeps planets from escaping their orbits	Chairs can be sat upon
TRANSFER:	Gravity is why water runs downhill.	Some things you sit on are not chairs.

Affects = feelings and values about others, objects, self, and interactions of self with others.

Although we divided non-skill ILO's into two categories, really we are saying that a non-skill ILO can be classified as **primarily** affect or cognition. In reality, you can't have an affect without some cognition nor do you normally have a cognition without some degree of associated affect. Some ILO's are **primarily** affect, some are **primarily** cognition, and some are a pretty even mixture of the two aspects of non-skill intended learning outcomes.

****

TRY IT!

Classify each item below as cognition, affect, or mixture of the two. Use the following code for marking:

C =cognition A = affect CA = mixture

______ 1. The student knows the differences and similarities among agarian, commercial, and commercial-industrial lifestyles.

______ 2. The student wants to read novels that have received widespread critical acclaim.

______ 3. The student understands the concept of neuro-transmitters.

______ 4. The student feels pride in own efforts to practice good health habits.

______ 5. The student tolerates the culture of others.

______ 6. The student remembers basic safety rules for operating an x-ray machine.

______ 7. The student wants to have a small family.

______ 8. The student knows 6 methods of contraceptives.

****

1-C 3-C 5-A 7-A
2-A 4-CA 6-C 8-C

8 correct is excellent
7 correct is very good
6 correct is good
5 (or less) correct indicates you should go back and review the first part of the module

****

Writing Intended Learning Outcomes

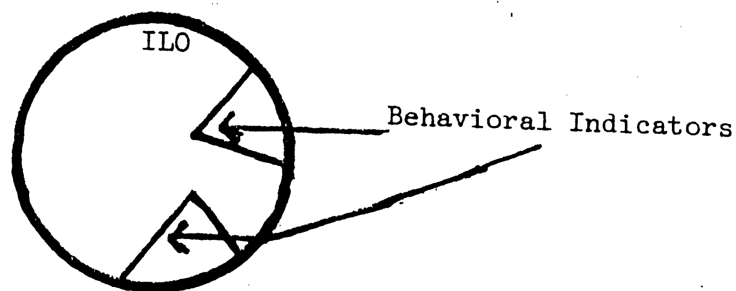
Good intended learning outcomes:

1. Specify clearly the learning outcomes so appropriate instructional strategies can be designed.

2. Are unambiguous about the professor's expectations for students.

3. Can generate a behavioral indicator.

An intended learning outcome is the anticipated end product of teaching and learning. Behavioral indicators that the desired learning outcome has been reached are called Evidences of Mastery, i.e., proof (or evidence) that the student has mastered (overcome) the learning task. Evidences of mastery are often written in a special form called a "behavioral objective". The relationship between and ILO and a behavioral indicator can be diagramed as follows:



Here is an example of an intended learning outcome (ILO), an evidence of mastery (EM), and a behavioral objective (BO):

ILO: Student can solve "2-unknown" equations (wherever and whenever encountered).

EM: Student correctly solves an equation without help.

B.O. The student solves 9 out of 10 equations containing two unknowns with a time limit of 20 minutes.

In this section of the module, we will study about how to state intended learning outcomes. Subsequent sections of the module

will discuss how to write evidences of mastery and behavioral objectives.

Stating Cognitions

The intended cognitive learning outcomes for a unit or course are generally stated as **concepts** or as **relationships**.

Concepts are specified in one or more of these ways:

1. List of terms
2. Definitions
3. Conceptual map

The form for intended conceptual outcomes is as follows:

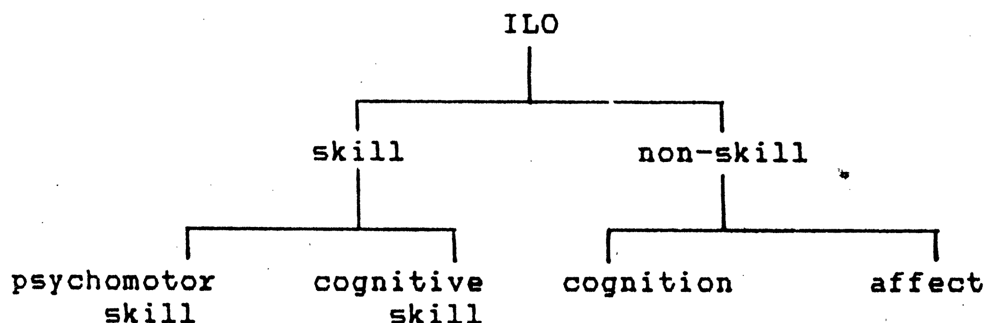
The student will understand or acquire the concept: (attach lists, definitions, and/or conceptual map).

Example: For this module two intended conceptual outcomes are as follows:

1. The student will understand the types of intended learning outcomes:

Terms	Definition
skill	performance outcome of learning
non-skill	other than skill outcome
cognitions	ideas, facts, principles, etc.
affects	feelings and values
psychomotor skill	physical abilities
cognitive skill	operations with cognitions

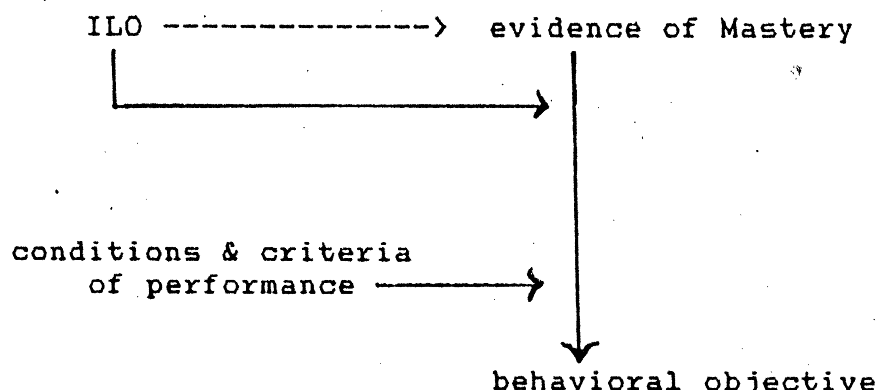
Conceptual map



2. The student can differentiate an intended learning outcome, an evidence of mastery and a behavioral objective.

Terms	Definition
intended learning outcomes	expected product of learning
evidence of mastery	observable indicator of learning
behavioral objective	form for stating intended outcomes which combines ILO and EM with conditions and criteria of performance

Conceptual map:



Relationships are generally stated in the form of a proposition. A proposition is the functional relationship between two concepts.

Concept (function) concept = 1 proposition

Examples: All bachelors (are) single.
Computers (have introduced) the Information Age.

In writing the intended learning outcome, you must specify what learners are to do with the relationships:

1. Memorize
2. Comprehend
3. Believe
4. Provide justification or evidence

Example: Two relationships which you are intended to learn from this module are:

1. The professor will comprehend that specifying ILO'S clearly (enables) development of behavioral indicators of mastery.

2. The professor will believe that affects (are important) intended learning outcomes.

Stating Affects

Affects are generally stated as the relationship of the learner to a referential concept. Example: The profesor will value affect ILO's.

In writing affect ILO's, you must be careful to do the following:

1. Select exact verb: inclined, disposed to, like, respect, care, opt, cherish, prefer, choose, value, tolerate, trust, resent, reject

2. Describe referent sufficiently: Tolerate other's opinions - other's opinions different from own - other's opinions as means of growth.

Stating Skill ILO's

Remember, there are two sub-categories of skills that can be specified as intended learning outcomes: Cognitive Skills and Psychomotor/perceptual Skills.

Cognitions are **prerequisite** (but **NOT** equivalent) to cognitive skill. Example: Knowing 2 + 2 = 4 is a cognition. **Using** 2 + 2 = 4 in solving the problem 25 + 28 = 53 is a cognitive skill.

1. Cognitive skill = operations with or application of cognitions.

2. Psychomotor/perceptual skills = physical skills, abilities, movements such as

(A) Fundamental and reflexive movements, (running, jumping, balance, posture)

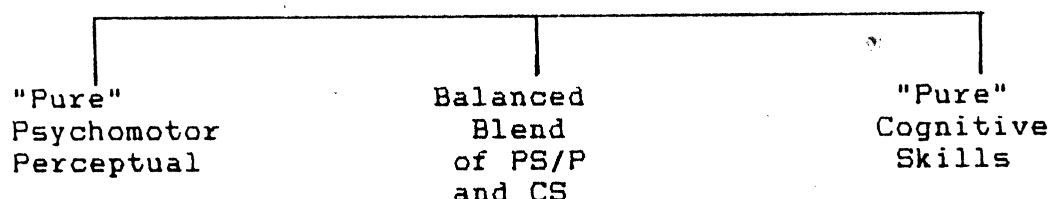
(B) Perception and perceptual discrimination, (physical orientation, bodily awareness, visual tracking)

(C) Physical qualities, and (endurance, speed, agility)

(D) Complex skilled movements, (typing, sawing wood, trampoline stunts)

Similarly to the situation for Non-Skills, you also rarely find a "pure" psychomotor/perceptual skill or a "pure" cognitive skill. You need to think of skill ILO's as occurring on a continuum from "pure" examples of psychomotor/perceptual skills at one end to "pure" examples of cognitive skills at the other end. The sucking reflex of a baby is about as pure a psychomotor/perceptual skill as you can find; on the other hand, biostatistics is a good example of an **almost** pure cognitive skill.

Most of the time, a skill will have a mixture of the two elements. For example, reading this module requires very skillful psychomotor/perceptual eye movements but the **primary** focus of the activity is cognitive. Thus, skill ILO's are classified as **primarily** one or the other or a **blend** of the two.



Skill ILO's take the form: Learner can (do).

Example: The professor can write ILO's of four types: affect, cognition, cognitive skill, and psychomotor/perceptual skill.

****
TRY IT! For a course you teach, write an ILO in each category:

Cognition: ____

____

Affect: ____

____

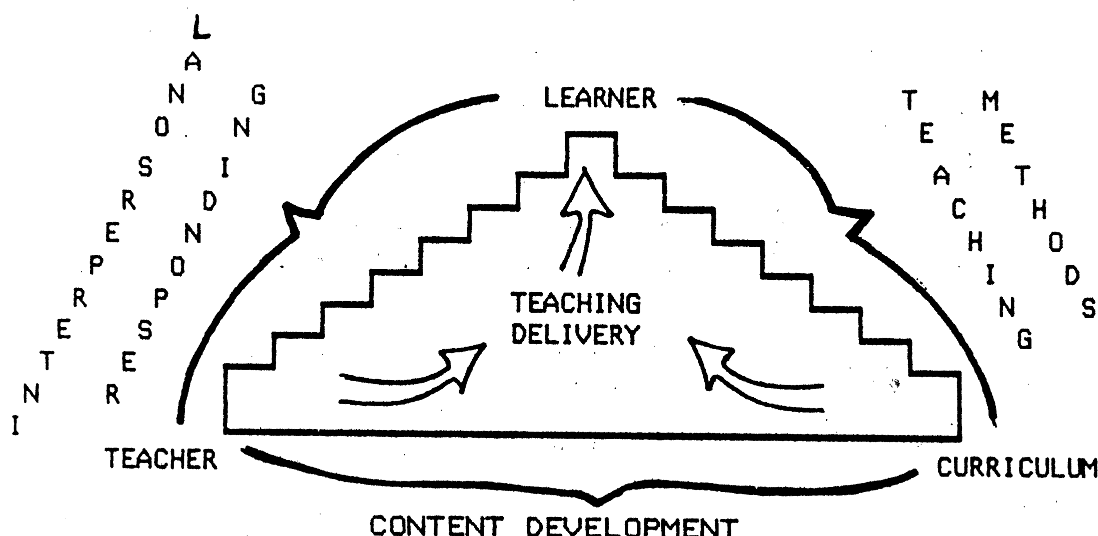
Cognitive Skill: ____

____

Psychomotor/Perceptual Skill: ___________________________

____
****

with the content and with the teacher's instructional acts. The teacher must also develop the content of the curriculum so that the student can achieve the intended learning outcomes of the course. Thus the diagram must be expanded this way:



As indicated in the diagram above, the teacher interacts with the curriculum in the process of **content development**. When the teacher interacts with the student to deliver content in the learner's frame of reference, the process is referred to as **interpersonal responding**. The teacher manages the engagement of the learner with the content through the **teaching methods** selected. And finally, **teaching delivery** occurs when the instructional acts and the content encountered result in desired outcomes for the learner.

The intended learning outcome for this manual is that you will develop additional skills in managing all components of the teaching/learning process. Each of the four components of skilled teaching will be presented through the medium of two or more skills development modules. When you have completed this manual, it is anticipated that you will have a wider response repertoire in the acts of instruction.

NOTE: This model of Effective Teaching adapted from the model by R. R. Carkhuff in The Skilled Teacher (Amherst, MA: Human Resource Development Press, 1981) and in The Productive Teacher (Amherst, MA: Human Resource Development Press, 1984).

One help in writing ILO's is a breakdown of thinking processes developed by a team led by Dr. Bloom. These thinking processes are listed and defined for you in Table 2. **NOTE** that the first two levels are cognitions and the remaining four levels are cognitive skills. EXAMINE TABLE 2, NOW.

TABLE 2: BLOOM'S TAXONOMY of COGNITIVE OBJECTIVES*

1.00 KNOWLEDGE OF
- 1.10 Specifics
- 1.11 Terminology
- 1.12 Specific Facts
- 1.20 Ways and means of dealing with specifics
- 1.21 Conventions
- 1.22 Trends, sequences
- 1.23 Classifications and categories
- 1.24 Criteria
- 1.25 Methodology
- 1.30 Universals and abstractions
- 1.31 Principles and generalizations
- 1.32 Theories and structures

2.00 COMPREHENSION
- 2.10 Translation
- 2.20 Interpretation
- 2.30 Extrapolation

3.00 APPLICATION

4.00 ANALYSIS OF
- 4.10 Elements
- 4.20 Relationships
- 4.30 Organizational principles

5.00 SYNTHESIS
- 5.10 Production of a unique communication
- 5.20 Production of a plan or a proposed set of operations
- 5.30 Derivation of a set of abstract relations

6.00 EVALUATION
- 6.10 Judgment in terms of internal evidence
- 6.20 Judgment in terms of external criteria

*Bloom, B.S. (Ed.), Englehart, M.D., Furst, E.J., Hill, W.H., and Krathwohl, D.R. A Taxonomy of Educational Objectives: Handbook I, The Cognitive Domain. New York: Longmans, Green, 1956.

Then another group of educators took Bloom's taxonomy and "instrumented" the levels, supplying the kinds of verbs and examples of objects (or things) used at each level of thinking. (**See Table 3**). These can be turned directly into intended learning outcomes. **COMPARE TABLES 2 AND 3.**

Table 3: Instrumentation of the Taxonomy of Educational Objectives: Cognitive Domain

Taxonomy Levels	Key Words: Examples of Infinitives	Key Words: Examples of Direct Objects
1.00 KNOWLEDGE		
1.10 Knowledge of Specifics		
1.11 Knowledge of Terminology	to define,to distinguish,to acquire, to identify, to recall, to recognize	vocabulary terms,terminology, meanings, definitions, references, elements
1.12 Knowledge of Specific Facts	to recall, to recognize, to acquire, to identify	facts, factual information, (sources, names dates, events, persons, places, time periods), properties, examples, phenomena
1.20 Knowledge of Ways and Means of Dealing with Specifics		
1.21 Knowledge of Conventions	to recall, to identify, to recognize, to acquire	form(s), conventions, usage, rules, ways, devices, symbols, representations, style(s), format(s)
1.22 Knowledge of Trends,	to recall, to recognize, to acquire, to identify	action(s), processes, movements, continuity, developement(s), trend(s), sequence(s), causes, relationship(s), forces, influences
1.23 Knowledge of Classifications and Categories	to recall, to recognize, to acquire, to identify	area(s), type(s), feature(s), class(es), set(s), division(s), arrangement(s) classification(s)(s), category/categories
1.24 Knowledge of Criteria	to recall, to recognize, to acquire, to identify	criteria, basies, elements
1.25 Knowledge of Methodology	to recall, to recognize, to acquire, to identify	methods, techniques, approaches, uses, procedures, treatments
1.30 Knowledge of the Universals and Abstractions in a Field		
1.31 Knowledge of Principles, Generalizations	to recall, to recognize, to acquire, to identify	principle(s), generalization(s), proposition(s), fundamental(s), laws, principal elements, implication(s)
1.32 Knowledge of Theories and Structures	to recall, to recognize, to acquire, to identify,	theories, bases, interrelations, structure(s), organization(s), formulation(s)
2.00 Comprehension		
2.10 Translation	to translate, to transform, to give in own words, to illustrate, to prepare, to read, to represent, to change, to rephrase, to restate	meaning(s), sample(s), definitions, representations, words, phrases

2.20 Interpretation	to interpret, to reorder, to rearrange, to differentiate, to distinguish, to make, to draw, to explain, to demonstrate	relevancies, relationships, essentials, aspects, new view(s), qualifications, conclusions, methods, theories, abstractions
2.30 Extrapolation	to estimate, to infer, to conclude, to predict, to differentiate, to determine, to extend, to interpolate, to extrapolate, to restructure	consequences, implications, conclusions, factors, ramifications, meanings, corollaries, effects, probabilities
3.00 Application	to apply, to generalize, to relate, to choose, to develop, to organize, to use, to employ, to transfer, to restructure, to classify	principles, laws, conclusins, effects, methods, theories, abstractions, situations, generalizations, processes, phenomena, procedures
4.00 Analysis		
4.10 Analysis of Elements	to distinguish, to detect, to identify, to classify, to discriminate, to recognize, to categorize, to deduce	elements, hypothesis/hypotheses, conclusions, assumptions, statements (of fact), statements (of intent), arguments, particulars
4.20 Analysis of Relationships	to analyze, to contrast, to compare, to distinguish, to deduce	relationships, interrelationships, relevance, relevancies, themes, evidence, fallacies, arguments, cause-effect(s), consistency/consistencies, parts, ideas, assumptions
4.30 Analysis of Organizational Principles	to analyze, to distinguish, to detect, to deduce	form(s), pattern(s), purpose(s), point(s) of view(s), techniques, bias(es), structure(s), theme(s), arrangement(s), organization(s)
5.00 Synthesis		
5.10 Production of a Unique Communication	to write, to tell, to relate, to produce, to constitute, to transmit, to originate, to modify, to document	structure(s), pattern(s), product(s), performance(s), design(s), work(s), communication(s), effort(s), specifics, composition(s)
5.20 Production of a Plan, or Proposed Set of Operations	to propose, to plan, to produce, to design, to modify, to specify,	plan(s), objectives, specification(s), schematic(s), operations, ways, solution(s), means
5.30 Derivation of a Set of abstract Relations	to produce, to derive, to develop, to combine, to organize, to synthesize, to classify, to deduce, to develop, to formulate, to modify	phenomena, taxonomies, concept(s), scheme(s), theories, relationships, abstractions, generalizations, hypothesis/hypotheses, perceptions, ways, discoveries
6.00 Evaluation		
6.10 Judgements in Terms of Internal Evidence	to judge, to argue, to validate, to assess, to decide	accuracy/accuracies, consistency/consistencies, fallacies, reliability, flaws, errors, precision, exactness
6.20 Judgements in Terms of External Criteria	to judge, to argue, to consider, to compare, to contrast, to standardize, to appraise	ends, means, efficiency, economy/economies, utility, alternatives, courses of action, standards, theories, generalizations

*Metfessel, N.S., Michael, W.B., Kirsner, D.A. Instrumentation of Bloom's and Krathwohl's taxonomies for the writing of educational objectives. Psychology in the School, 1969, 7 (3), 227-231.

Evidences of Mastery

After specifying an ILO, the professor must decide how it can be determined when the student has achieved the goal; i.e., when the student has mastered the expected learning. To do this, the professor specifies some observable behaviors which can be expected of a student who has mastered the intended learning outcome. These behavioral indicators of mastery are called evidences of mastery and they are different for each category of intended learning outcomes.

COGNITION: As evidence that the student has mastered a cognition, you specify some observable behavior that will let you decide **whether the student has the information in his/her head.** EXAMPLE: The student lists 12 psychomotor/perceptual skills, without prompting or reference materials. (If the student can list them without reference to a chart or other material, then you can confidently assume he has the information in his head.)

Words often used in writing evidences of mastery of COGNITIONS include: **write, tell, list, explain, state, repeat, draw, point out, define**, etc. They are ways that the student can prove that he does **know** the facts, concepts, relationships, or principles he is supposed to have learned.

COGNITIVE SKILL: As evidence that the student has mastered a cognitive skill, you specify some observable behavior that will let you decide whether the student can **use** the information in his head. EXAMPLE: The student can create an evidence of mastery for each ILO.

Words often used in writing evidences of mastery of COGNITIVE SKILLS include: **decide, show, demonstrate, carry out, solve, create, analyze**, etc. They are ways that the student demonstrates that he can **do** something with the information he has learned.

AFFECT: As evidence that the student has mastered an affect, you specify some observable behavior that provides you with **reason to believe** that the student in fact does have that affect in his heart. EXAMPLE: The participant chooses to specify at least one affect ILO for each lesson he plans. (This would be **reason to believe** that the participant has mastered the intended learning outcome of valuing affective objectives in learning.)

Words often used in writing evidences of mastery of AFFECTS include: **chooses, selects, acts upon, verbalizes, seeks out**, etc. They are words that name actions, choices, interactions, and voluntary statements made by the student which provide you with evidence that the student does **believe** or **value** a specific concept.

PSYCHOMOTOR/PERCEPTUAL SKILL: These are the easiest to write. You

merely specify an example of performance of the skill as your evidence that the student has mastered it. EXAMPLE: The student performs a tubal ligation.

Several examples of ILO's and associated evidences of mastery are presented in Table 4. Read them. Classify each of the ILO's. Write your answers in the lines to the left of each ILO. Use this code to mark your classifications.

COG = COGNITION CS = COGNITIVE SKILL
A = AFFECT P = PSYCHOMOTOR/PERCEPTUAL SKILL

Table 4: Examples of ILO's and EM's.

INTENDEND LEARNING OUTCOME	EVIDENCE OF MASTERY
The student will...	
_____ 1. Know the data necessary to include in a comprehensive history from each patient.	When asked, the nurse/midwife explains the important data required for a complete patient history.
_____ 2. Use appropriate interviewing techniques to collect information from patients.	When observed, the resident uses appropriate interviewing techniques for each patient.
_____ 3. Be able to identify and prioritize psycho-social aspects of pregnancy and family planning.	When given a case history, the nurse/midwife identifies and prioritizes the patient's problems.
_____ 4. Be able to counsel patients to select and accept the best suited contraceptive method.	When given a case history, the nurse/midwife correctly decides which methods of family planning are contra-indicated.
_____ 5. Value listening and responding to patients' feelings and values	Respond to feelings after listening to another person in simulated interviews.
_____ 6. Review signs and symptoms of pregnancy.	Describe the signs and symptoms of pregnancy; be able to detect by physical exam and a history.
_____ 7. Be able to take a history.	Interview a patient and accurately record her gynecological and obstetrical history.
_____ 8. Be able to do a complete general and pelvic examination.	Accurately perform a general and pelvic examination on a patient and describe findings to an examiner.
_____ 9. Review and demonstrate aseptic techniques.	Correctly set up a sterile tray for insertion of IUD when given a broad selection of instruments and supplies.
_____10. Be able to insert an IUD.	Correctly insert an IUD under the professor's observation.

```
***********************
* CHECK YOUR ANSWERS: *
*                     *
* 1-COG    6-COG      *
* 2-CS     7-CS       *
* 3-CS     8-CS/P     *
* 4-CS     9-COG      *
* 5-A     10-P        *
***********************
```

Now it is time to try it yourself. For each ILO below, write an evidence of mastery.

The student will:	Evidence of Mastery:
review the anatomy and physiology of the male and female reproductive tract.	
believe in the importance of a referral system.	
know the side effects and contraindications of IUD's.	
be able to fit and teach the patient how to use the diaphragm.	
be able to teach patients how to use condoms and spermicides.	
be able to teach patients about the rhythm method.	
know the side effects and contraindications of hormonal contraceptives.	
be able to prescribe hormonal contraceptives.	
value the importance of making and maintaining accurate records.	
make and maintain clear and accurate records for the use of other health workers	

Behavioral Objectives

Behaviorial objectives are a special way of combining the intended learning outcome and the evidence of mastery in one statement. It is a very popular way of specifying learning objectives. They are also useful in writing proposals for funding since many governmental agencies require behaviorial objectives for proposals other than pure research activities.

In writing a behaviorial objective, you specify the expected outcome, how you will know that the outcome has been achieved, the conditions under which you will observe the performance, and the level of performance that will be expected. The components of a behaviorial objective are:

1. Conditions of performance (when or stimulus or materials)
2. Who
3. Does what
4. How well

The form of a behaviorial objective is as follows:

Given ______________________________ (conditions). The

______________ (who) will ______________ (do what)

______________________________ to a level

of ______________________________ (how well)

EXAMPLE:

After completing 5 reflux tests for varicocele for 5 positive **(conditions)**

cases, the resident **(who)** will carry out Hale investigation **(do what)**

of varicocele satisfactorily as indicated by properly

eliciting reflux by valsalva **(how well)**.

ANOTHER EXAMPLE: Upon completion of this module, the participating health care professional will classify lecture content when planning a presentation so that the cognitive operations required of students are appropriate to the desired learning outcomes.

Now see if you can identify the parts of a behaviorial objective. In the example below, indicate the four components of the behavioral objective by underlining and naming the components.

The medical student will be able to carry out a speculum examination and efficiently display/demonstrate the cervix and vagina without discomfort to the patient by the end of today's gynaecological clinic..

****

DID YOURS LOOK LIKE THIS:

The medical student (who) will be able to carry out a speculum examination (do what) and efficiently display/demonstrate the cervix and vagina without discomfort to the patient (how well) by the end of today's gynaecological clinic (conditions).

As you can see, the order of the components can be changed and it is still a proper behavioral objective.

****

TRY IT !! Select one Intended Learning Outcome and its associated Evidence of Mastery from the curriculum on pages 15-20. Write a behavorial objective combining that intended learning outcome and its evidence of Mastery.

____

____

Now, label the parts of the objective you wrote as you did in the exercise above. Be sure to label **all 4 parts of the objective:**

1. Conditions of performance
2. Who
3. Does what
4. How well

Had you included all 4 parts in your objective? If not, rewrite your objective to include the part(s) you had left out.

SUMMARY

Select one content area in the curriculum for your academic program. Identify the intended learning outcomes in that content area. Classify each of the intended learning outcomes as to whether it is Cognitive, Cognitive-Skill, Affect, or Psychomotor/ Perceptual. What are the evidences of mastery expected for each intended learning outcome? Are the evidences of mastery appropriate to the type of intended outcome? Is your curriculum written with behavioral objectives? If so, does each objective contain all four parts?

ORGANIZING FOR LEARNING

The Four-part Lesson

INTENDED LEARNING OUTCOMES

1) The participant will comprehend those areas of instruction which interact with students and can evaluate his/her personal performance in each area.

2) The participant understands the principles of curriculum-student interaction and can list at least five specific ways to make instruction responsive to students.

MATERIALS NEEDED

1) This module, paper and pencil.

2) A Partner or Buddy who is working on this module also. Each of you will work individually on the module except when instructed to work together.

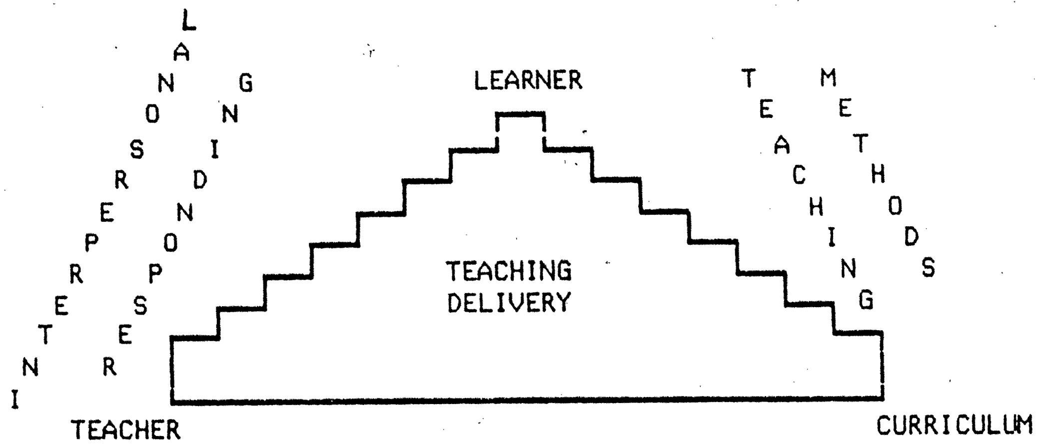
PROCEDURES

Overview:

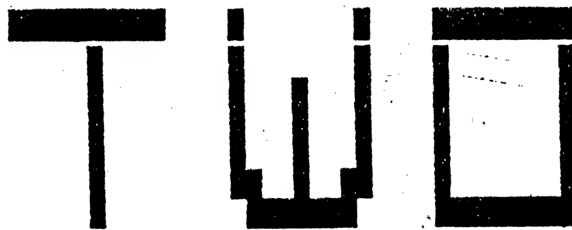
This module is about the planning of instructional activities. At the conclusion of this module, you should be able to list at least five specific behaviors by which you can make instruction responsive to students.

Principle:

The teacher cannot "learn" the student anything; but is responsible for structuring the teaching-learning situation so that the student is enabled and encouraged to learn. This means that you must organize instruction so that it is responsive to the needs and interests of each student. Now take the pre-measure to find out where you are in relationship to this concept.



CONTENT DEVELOPMENT



CONTENT DEVELOPMENT

Content development occurs in two phases: **before the learner** enters the classroom and **after** the teacher and the learners have met. Prior to meeting with the learners, the teacher has assessed the structure and concepts of the subject matter, set content and skill goals, and planned ways of diagnosing and evaluating the learners. That is, the teacher has prepared the content which is to be learned. After the learners have been diagnosed, this content is adjusted to their needs and values. The modules in this section deal with both phases of content development.

LEARNING ACTIVITIES

****

I. PRE-MEASURE:

In the lines below, list five ways by which you can make instruction responsive to the needs or interests of students.

1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

****

* FEEDBACK:
* You will receive feedback on your pre-test *
* after you've gone through the module. *
****

Principles of Responsive Instruction

Instructional interaction or learning experiences should be responsive to students. Four principles to keep in mind in organizing responsive instruction are:

1) The activities should be based on diagnosis of pupil needs.

2) They should be relevant to the students' interests.

3) The students should know what is expected of them.

4) The activities should provide for differences in learning styles.

Diagnosis of pupil needs. The planning of your teaching activities should reflect your diagnosis of student needs. This means that you will make differential provisions within each lesson for the different skill levels. What are effective ways of diagnosing student skill levels?

****
* ACTIVITY:
* Discuss ways to diagnose skills with your partner. **When** *
* **through discussing**, check to see how many of the items *
* below were covered in your discussion. *
* *
* 1. Achievement testing provides comparisons between
* students; not individual skill levels.
* *
* 2. Formal diagnosis can be done with specific pre-tests *
* or criterion-referenced tests. *
* *
* 3. Informal diagnosis should be carried on constantly *
* as each student performs his learning tasks. *
* *
* 4. Looking, listening, and responding to student feelings *
* and ideas is the best way for moment-to-moment diagnosis. *
****

Relevant to student goals and interests. The materials you select to work with should be ones which are pertinent to the students and the course objectives. Learning activities and materials can be chosen to reflect student interests. For example, in POPULATION DYNAMICS, rather then everybody having the same data, each student can practice his skills with the data of a country or of a state in which he is interested or a place where he has been and likes. What are other ways of making curriculum or learning materials relevant to students?

WRITE YOUR ANSWERS HERE:

____

____

____

****
* *
* NOW, CHECK YOUR ANSWERS: Materials could be matched to any *
* of the following: *
* *
* socio-economic class skill levels *
* ethnic membership clinical assignments *
* abilities local occupational opportunities *
* personal goals out-of-school activities *
* needs local opportunities *
* *
****

Knowing what is expected of them. Students should be told the objectives of the learning activity early in the process. When learning activities and materials are based on diagnosis of student needs and relevance, and when the students know what is expected of them, they can and will perform well.

Making Instruction Responsive

One way of making sure that instruction is responsive to students is through use of four-part lessons. This simply means that every lesson you carry out should have four parts to it:

1) Overview
2) Principle
3) Activities
4) Summary

This module* will instruct you in how to plan a 4-part lesson. The following is an outline of what you can expect to learn.

1) Overview

    a) Outline contents
    b) State expectancies for students

2) Principle

    a) Theme or main concept
    b) Why important
    c) How relevant

3) Activities - what teacher and students will say and do

    a) Tell
    b) Show
    c) Do

4) Summary

    a) Put it all together
    b) Relate it to other learning

---

*The rest of this module is adapted from material in The Productive Teacher by Carkhuff, et al. Amherst, MA: Human Resource Development Press, 1984.

Parts of the 4-Part Plan.

The overview should tell the students what you are going to do and what you expect them to be able to do when it is finished. Be sure that what you tell the students you want them to do is what you really plan on asking them to do. What we often do is say:

"Boys and girls, I want you to be able to tell me when Columbus discovered America. Now he set out for America in 1492. He went in three ships, the Nina, the Pinta, and the Santa Maria in 1492. Later that year, in 1492, he first saw the new lands. Alright. Now get out your pencils and paper. I'm going to test you on what I taught you. Ready? Write the names of the three ships Columbus sailed in!"

Recall the overview of this module. It stated that we were going to discuss aspects of instructional activities, and that you would be able to list at least five specific behaviors by which you can make instruction responsive to students. At the end of this module, you will be asked to tell five ways you can make instruction responsive to students. You will not be asked five ways of measuring interpersonal conditions in the classroom. Remember, tell students what you want them to do and then ask them to do it! Test what you teach . . . not incidental learning!

For practice, think of a lesson you are going to teach. Write a two or three sentence overview of that lesson that (a) tells what you are going to do and (b) what you will expect them to be able to do when the lesson is finished. Write your overview in P-1 below.

P-1 YOUR OVERVIEW:____

____

____

****
* Now, share your response with your partner. Help each other *
* to write the best overview you can. Keep it short but
* complete. *
****

The principle is that part of the lesson in which you point out to the students the main concept from which is drawn the specific skill(s) they will learn and why what you are going to teach is important.

If possible, it should include a statement about how what they are

going to learn is relevant or useful to them right now.
The principle of this module was stated (on the 1st page) as: "The teacher can not 'learn' the kids anything; but is responsible for structuring the teacher-learning situation so that the pupil is enabled and encouraged to learn. This means that you must organize your instruction so that it is responsive to students."

```
***************************************************************
* DISCUSS THE FOLLOWING QUESTIONS WITH YOUR PARTNER; What is  *
* the main concept of this lesson: What is the skill you are *
* learning? Why is this skill relevant to you right now?      *
***************************************************************
```

Now think about the overview of the lesson plan that you wrote in "P-1" Re-read it and decide its main idea. What is the principle you want students to learn? How is it relevant to them right now? Why is it important? What skill will be based on it? Write the principle of that lesson in Section P-2, below.

Remember, the Principle tells the students a) the major theme of the lesson, b) why it is important, and c) how it is relevant to them.

P-2: YOUR PRINCIPLE: ____

____

____

____

____

```
*****************************************************************
* Now, share your response with your partner. Help each other  *
* write the best statement of principle that you can. Keep it  *
* short but complete.                                           *
*****************************************************************
```

The learning activities themselves make up third part of the learning plan for each lesson. This is what you are going to say or do and what the students are going to say or do. We are now in the activities section of the lesson for this module. What is happening?

Now, in Section P-3 on the next page, briefly list the activities you will carry out in the lesson plan for which you wrote an overview and a principle, above.

Remember, the Learning Activities are (a) What you are going to say or do and (b) what you are going to ask the students to say or do.

P-3: YOUR LEARNING ACTIVITIES:________________________________

____

____

____

****
* Now, share your list of activities with your partner. Help *
* each other to come up with creative and interesting activities*
* which will help your students learn the lesson each of you *
* will be presenting. *
****

The summary comes after the activities for the lesson have been completed. You can do it yourself or, better yet, have the students do it. In your summary, point out how this new thing they have worked on connects up with other things they have already learned. This helps the students organize it is their heads and "have it for their own." Another way of summarizing is through some kind of post-measure where the students demonstrate their mastery of the skill, evaluate their own responses, and discuss the results in terms of the concepts in the lesson. We are not yet through with our learning activities in this module but when we do finish, we will have a summary.

In the meantime as an example of one kind of summary, let's summarize what we have done so far. What are three ways you can make a learning activity responsive to students? What are the four parts of the plan for responsive instructional activities? What does this mean to you in your job? Write your answers here:

____

____

____

____

****
* ACTIVITY: Share your answers to the three questions above *
* with your partner. Check each other. *
****

In Section P-4 below, write a brief outline summary of the main points you will want students to remember about the lesson you have been planning in parts P-1, P-2, and P-3, above. Be sure to connect it to other learnings.

Remember, the Summary puts it all together for the students and helps them to connect it up with other learnings. It should (a) review what has been learned that day, and (b) emphasize its relevance to the students' current needs or interests.

P-4: YOUR SUMMARY: ____

____

____

****
* Now, share your summary with your partner. Help each other
* to write a brief (but complete) summary that covers the main *
* points of your lesson and relates the learnings to other *
* things already learned. *
****

Providing for differences in learning style.

Some pupils learn best from visual presentations; some from audio; some from kinesthetic or sensori-motor activities. The best learning style for a particular person changes from time to time and from subject matter area to subject matter area. You can never know exactly what is best for which person at which time. So what you have to do is always use all three modes of presentation in the activities part of your lesson plan. This means you must always Tell, Show, and Do. Tell for the audio learners, Show for the visual learners, and Do for the kinesthetic learners.

As we have covered this section, how has this rule been followed?

****
* DISCUSS this question with your partner. Write below the *
* answer you decided upon. *
****

____

____

____

****

* NOW, CHECK YOUR ANSWERS AGAINST THESE.

1. You were <u>SHOWN</u> the concepts in outline form and this module explained them more fully and pointed out examples as it went along.
2. The content was reinforced by <u>TELL</u> when you and your partner talked together about it.
3. You were asked to <u>DO</u> each step as you learned it.

****

You could have learned about the 4-Part lesson Plan in a different way. For example, a lecture could have been given in which the lecturer:

1. <u>Told</u> you the concepts.
2. <u>Showed</u> you the information by:
   a. presenting a transparency on the overhead projector
   b. modeling the giving of a four-part plan and pointing out examples
   c. giving you a worksheet with the main ideas listed
3. Had you <u>do</u> something with the ideas, for example, develop a complete lesson plan.

REMEMBER...each four-part lesson plan should have three sub-parts in its Activities section: Tell, Show, and Do. Every lesson should involve having the student do something with the new skill or concept they have learned. Ideally, the <u>show</u> and <u>do</u> parts of the lesson should be the biggest parts and the <u>tell</u> part should be the smallest.

Using the lesson you have been developing all through this module, list briefly what you will <u>tell</u> your students, what you will <u>show</u> your students, and what you will have the students <u>do</u>. Write your lists on the lines, below.

Remember, the Learning Activities for each lesson should include <u>Tell</u>, <u>Show</u>, and <u>Do</u> modes of presentation.

RE-READ THE LEARNING ACTIVITIES YOU WROTE IN P-4, ABOVE. THEN COMPLETE THE FOLLOWING LISTS. YOU MAY WISH TO ADD SOME ACTIVITIES.

You will TELL: ____

____

You will SHOW: ____

____

Your students will DO: ____

____

88888888888888888888888888888888888888888888888888888888888888888

PUTTING IT ALL TOGETHER !! On pages 53-54, you will find an example of a complete Four-Part Lesson Plan. Rate that lesson plan with the RATING CHECKLIST FOR INSTRUCTIONAL PLANS which you will find on page 49.

88888888888888888888888888888888888888888888888888888888888888888

For the final DO part of this module, look at the CHECKLIST FOR RESPONSIVE INSTRUCTION on page 50. As you read each item, try to remember the classes you taught last semester. Estimate the number of lessons during the last semester in which you carried out each item. Write the number in the blank beside the item. When you have completed the CHECKLIST FOR RESPONSIVE INSTRUCTION, on page 50, answer the questions about your lessons below.

1. Identify and recall the lessons which met several of the criteria. Did students respond differently to those lessons than to lessons which met fewer of the criteria? ____________________

2. How was their response different? ____________________

____

3. Which item(s) on the checklist did you carry out least?

____

4. Which items did you carry out most frequently? __________

____

5. Which items will be easiest to incorporate into your future curriculum activities? ____________________

____

6. Which items will be the hardest? Why? ______________

____

7. What are the resources in your university that can be used to help you incorporate the harder items? ______________

____

****

* Discuss your answers with your partner. *

****

RATING CHECKLIST FOR INSTRUCTIONAL PLANS

DIRECTIONS: UNLESS OTHERWISE INSTRUCTED, ASSIGN THE PLAN ONE (1) POINT FOR EACH QUESTION THAT YOU CAN ANSWER "YES".

________1. Are the intended LEARNERS specified?

________2. Is the Goal specified in terms of the learner, not the instructor's behavior?

________3. Does the overview both (a) preview the content and (b) explain what the student will be expected to know or do after the instruction is completed? (If only one part stated, give 1/2 point.)

________4. Does the Principle (Rationale) tell all three of these: (a) the major concept or theme of the lesson, (b) why it is important, and (c) how it is relevant to the learner? (Give 1/3 point for each one which is adequately presented.)

________5. Is the learning content divided into two or more steps?

________6. Does each step have a Tell, a Show, and a Do part? (To get point value, divide the number of steps that have all three parts by the number of steps in the instructional plan.)

________7. Does each step have an outcome behavior specified for the step? (To get point value, divide the number of steps that have an outcome behavior by the number of steps in the instructional plan.)

________8. Do the learning activities for each step seem to be appropriate to the outcome behavior for that step? (To get point value, decide for each step whether the learning activities are appropriate to the outcome behavior for that step; then divide the number of steps in the instructional plan.)

________9. Is there a Mastery Check for the whole plan specified?

________10. Is the Mastery Check for the whole plan specified?

________11. Is there a summary specified?

________12. Did the summary both (a) review what has been learned and (b) emphasize the relevance of the content to the students' current needs or interests? (Give 1/2 point for each part which was done.)

________13. Was the total plan appropriate in content and activities to the intended audience?

________14. Were the activities and content of the total plan appropriate to he Goal of the plan?

________15. In general, if this plan were carried out properly do you think it would result in the intended audience being able to achieve the goal specified?

________ = TOTAL POINT VALUE (Maximum value is 15 points.
Excellent = 13 or more points.
Good = 10 or more points.)

CURRICULUM DEVELOPMENT

Intended Learning Outcomes

1. The learner understands the ralationships of the generalized planning model to teaching and to content development and can name the six phases of the planning model.

2. The learner can explain the curriclum development model and can name the three sources of educational goals.

OVERVIEW

Curriculum development is a specialized instance of the generalized planning model shown below. As with all planning models, it begins with the assessment of needs and proceeds through the subsequent planning phases. Once the success of the project (or instruction) has been evaluated, this information is fedback into a new needs assessment phase and the cycle is reiterated.

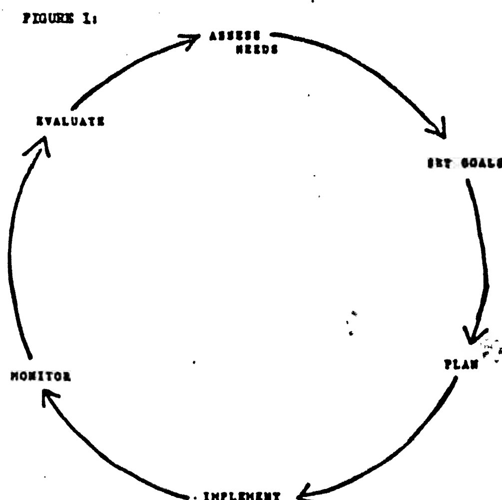


FIGURE 1: Generalized Planning Model

This module will overview all phases of the curriculum development process and consider in some detail the first three phases. Other modules in this section will present the remaining phases.

....
....

CHECKLIST FOR RESPONSIVE INSTRUCTION

Diagnosis of Pupils Needs.

1) How many lessons were planned specifically to meet skill deficiencies revealed in diagnostic testing? _______

2) In how many lesson plans did you make provision for differential achievement levels of the students? _______

3) In how many lessons did you make diagnostic notes about your pupils as you observed their performance? ____

Relevance to Student Goals and Interests

1) For how many lessons did you choose special material that reflected student need or interests or background? _______

2) How many activities did you plan around student interests? _______

Clarification for Students of What is Expected of Them

In how many lessons did you carry out each part of the four-part lesson plan? Estimate the number for each part for the whole semester or quarter.

1) Overview
   a) Tell them what you were going to do. _______
   b) Tell them what you expected them to be able to do when lesson was over. _______

2) Principle
   a) Tell them why what they are learning is important. _______

   b) Tell them how it is relevant to them in the present, not just in the furture. That is tell them how it relates to their goals of today. -------

3. Activity
   a) Tell them the concepts and skill steps _______
   b) Show them the concepts and still steps _______
   c) Do - - have students do skill steps or use content. -------

4) Summary
   a) Put it all together for them or have them do it _______
   b) Relate it to other things they have learned _______

In how many lessons did you do all of the parts of the lesson plan? -------

....
....

SUMMARY

You and Your partner will carry out the summary activity together. <u>Without looking at this module</u>, the two of you should list as many specific behaviors as you can think of which you can do to make curriculum and learning activities responsive to students.

****
* **Now, check your answers against these.** If your answer means
* the same thing but is in different words, that's okay. Also *
* give yourself credit if you provided a specific example of one*
* of the categories listed. *
* *
* 1) Diagnose individual student. *
* 2) Select materials pertinent to student. *
* 3) Design lesson plans with four parts: *
* a) overview *
* b) principle *
* c) activities *
* d) summary *
* 4) "TELL, SHOW, AND DO" all concepts *
* 5) Summarize *
* 6) Provide varied stimuli *
* 7) Systematically use checklist to increase responsiveness *
* of curriculum. *
****

As the last summary activity, go back and look at your answers to the <u>Premeasure</u> in the beginning of the module. Compare that list to the one you just made. Which answers are better? Which are more specific? Which are things you can actually <u>do</u>?

PRACTICAL APPLICATION:

1. Make several copies of the Responsive instruction Checklist. Do the checklist on each of your lesson plans for the next three weeks. For each lesson plan, just put a check-mark for each item you have incorporated in that plan.

2. Each week try to increase the number of check-marks per lesson planned.

3. For each of the first three weeks, plan at least one four-part lesson with a **TELL, SHOW, DO** activities section. Each week thereafter, increase the number of four-part lessons you plan.

4. Always note student reactions to your lessons. Do they respond differently when you are presenting a four-part lesson (with a tell, show, do activities section) than when you do not? Which kind of lesson helps you produce the kind of student reactions that you want?

REMEMBER, A SKILL - - ANY SKILL - - IS ONLY USEFUL WHEN IT HELPS YOU REACH YOUR GOALS. USE THE SKILLS OF RESPONSIVE INSTRUCTION TO HELP YOU REACH YOUR GOALS OF STUDENT LEARNING, CRITICAL THINKING, AND INVOLVEMENT.

EVIDENCES OF MASTERY

For objective 1: Each trainee evaluates his own lesson plans by using the checklist.

For objective 2: Each trainee lists five specific ways to make instructional activities responsive to students.

GENERAL AND PELVIC EXAMINATION
(CURRICULUM OBJECTIVE A-4)

INTENDED AUDIENCE: A group of six Nurse/Midwives within the age of 25 to 35 years.

GOAL: Upon completion of several lectures and demonstrations, each nurse/midwife will be able to do general and pelvic examination to the satisfaction of the examiner.

OVERVIEW: Today, we are going to review the anatomy of the Female Reproductive organs. Then we shall proceed to do a chest examination, breast and abdominal palpation and pelvic examination of a patient. At the end of the lesson, you'll each be expected to perform satisfactorily a general and pelvic assessment of a patient.

RATIONALE: You are being taught to do chest examination, breast and abdominal palpation and pelvic examination in order to help physicians in the Family Planning Care Delivery. This is important so that resources are not denied to a great number of our women.

In your role as Nurse/Midwives, you will be eager to reduce maternal and neonatal mortality rate, promote maternal and infant well-being, by participating effectively in the Family Planning Delivery Program.

STEP I: OUTCOME BEHAVIOR: Assigned a patient, each nurse/midwife will do a chest examination, breast palpation and abdominal palpation to the satisfaction of the examiner. She will give two reasons why it is important to do this examination.

TELL	SHOW	DO
Before advising a patient on a choice of contraceptive method, it is essential to do the following examinations. 1. Chest examination by auscultation to detect heart or lung abnormality. 2. Breast palpation to exclude neoplasm. 3. Abdominal examination to detect any underlying illness.	A diagram of chest examination and another on abdominal palpation. A poster on "Palpation of the Breast."	With supervision, ea[illegible] Nurse/Midwife does c[illegible] examination and brea[illegible] palpation on a patie[illegible]

STEP II: OUTCOME BEHAVIOR - Each Nurse/Midwife will be able to identify the female reproductive organs. She will be able to carry out Bi-manual examination and speculum per vagina to the satisfaction of the instructor.

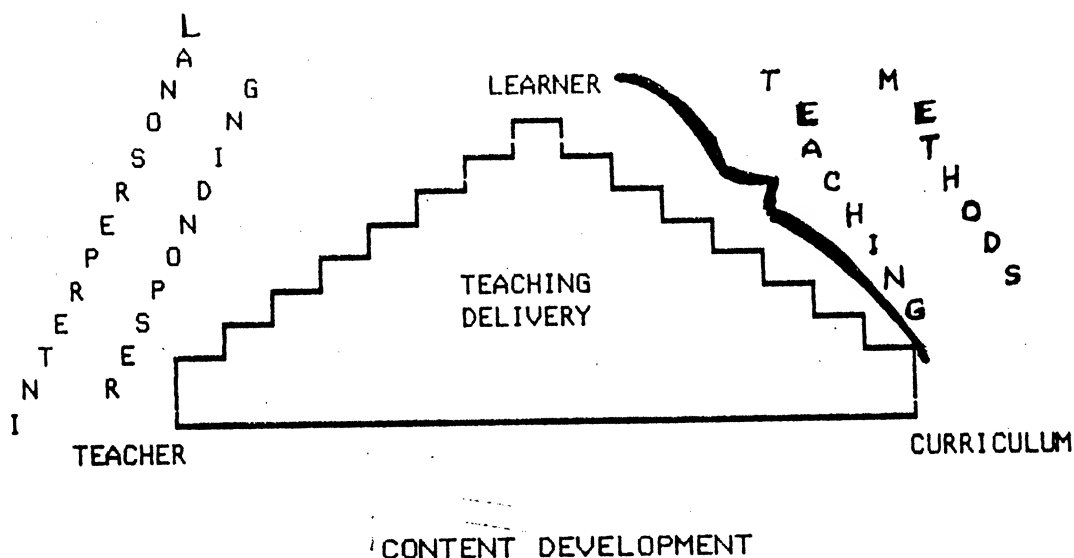
TELL	SHOW	DO
1. Briefly review the anatomy of the female internal organs of reproduction.	A diagram of the Female Internal Organs.	
2. Describe and demonstrate the technique of speculum examination.	A diagram showing Bi-manual examination.	Under supervision, carr out a Bi-manual vaginal examination and a specu examination on the mode
3. Describe Bi-manual examination and demonstrate technique.	A speculum A model of female pelvis with the complete female organs of reproduction.	

STEP III: OUTCOME BEHAVIOR - **Each nurse/midwife will satisfactorily** take a Pap smear and **endo-cervical swab** while being observed by the examiner.

TELL	SHOW	DO
1. Describe and demonstrate the technique of taking Pap smear. Say when to take it and why it is essential.	Ayre spatula Swab stick	Take a Pap smear and endo-cervical swab from a patient.
2. Describe and demonstrate the technique of taking endo-cervical swab for Gonorrhea screening.	Modified Thayer-Martin Medium	

MASTERY CHECK: The nurse/midwife will demonstrate that she has attained the stated goal by satisfactorily carrying out a general and pelvic assessment of a patient while being supervised and observed by the instructor.

SUMMARY: Following the history, chest examination, breast examination, abdominal palpation and vaginal examination are some of the prerequisite assessments on a new patient seeking contraceptive advice. Periodic assessments of this nature are also carried out in the Family Planning Clinic. It is therefore imperative to include the teaching of these assessments in the lesson plan for a group of nurse/midwives who would work in collaboration with the physicians in delivering effective family planning methods to the patients. It is also essential that this group of nurse/midwives medonstrate evidence of mastery before being accepted as family planning practitioners.



THREE

Teaching Methods

After the content has been developed, the teacher must plan the specific methods in which the learner will interact with the curriculum in order to reach the desired learning goals. As we saw in 4-Part Lesson planning, learners need to interact with the content in a variety of ways: visual, oral, and kinesthetic. Only then is content assimilated so that the knowledge can be applied. This section of the manual explores several ways to help learners interact effectively with content.

NOTES AND COMMENTS:

TYPES OF TEACHING METHODS APPROPRIATE IN THE EDUCATION OF HEALTH CARE PROFESSIONALS

1. LECTURE OR CASE PRESENTATION (BY INSTRUCTOR)
   (Lecture focused on content; Case Presentation on patient)
2. RECITATION OR CASE PRESENTATION (BY STUDENT)
3. LABORATORY EXERCISES
4. DISCUSSION GROUP OR SEMINAR
5. WARD ROUNDS; CLINICAL OBSERVATION; OUTREACH SERVICES
6. SMALL GROUPS
7. ONE-ON-ONE TEACHING
8. INDIVIDUALIZED INSTRUCTION
9. STUDY GROUPS

CHECKLIST FOR SELF-ASSESSMENT OF TEACHING METHODS USED

1. **Lecture**: Do I use. . .

_______Advance organizers

_______Coherent sequencing

_______Referential transition

_______Periodic student response

_______Internal summaries

_______Visual supplements

_______Challenge

_______Summary

2. **Case Presentation**: Do I . . .

_______Model consideration for patient

_______Vary history presentation with history elicitation

_______Ensure all students can observe pertinent clinical indications

_______Vary prepared student presentations of disease entity with instructor presentations

_______Ensure that patient leaves prior to discussion

_______Encourage expression of differing points of view

_______Encourage student-to-student as well as student-to-instructor interaction

_______Use questions and challenge to elicit critical thinking and foster a questioning attitude

3. <u>Laboratory Exercises</u>: Do I. . .

_______Vary exercises between "same skill/different material" and "different skills/same material".

_______Vary level of cognitions required of student in carrying out exercises.

_______Remain in room, available to students (Not in hall or office)

_______Observe students to diagnose performance problems

_______Guide students in resolving problem; <u>not</u> complete task for student.

_______Ensure that learning of technical competence is accomplished by appropriate principles of use and application

4. <u>Discussion Group or Seminar:</u> Do I . . .

_______Establish Guidelines for procedures and expectations of the session

_______Ensure purposes of session are known

_______Pose interesting questions or problems

_______Stimulate student-to-student interaction as well as student-toprofesor dialogue

_______Explore significance or implications of previous responses

5. <u>Ward Rounds</u>: Do I...

_______Inform patient <u>prior to round</u> that a group will b coming

_______Place the patient at ease

_______Respond to patient's concerns of modesty, timidity or fears related to illness.

_______Vary history presentation with history elicitation (by student and by teacher)

_______Secure patients' agreement before carrying out examination or manipulation

_______Ensure each student observes clinical indications

_______Withdraw from patient prior to discussion of the case

_______Hold discussion in quiet area away from patients, heavy traffic, loud noises, and discomfort of long periods of standing

_______Encourage students to question my opinion and to present their own opinions

6. <u>Small Groups</u>: Do I . . .

_______Establish Guidelines for procedures and expectations of the process

_______Ensure purposes of group are known

_______Set up groups so that interests and/or capabilities of members are appropriate to purposes.

_______Establish criteria for success

7. **<u>One-on-one Skills Teaching</u>**: Do I . . .

_______Overview the whole skill

_______Conduct a step-by-step breakdown of the skill

_______Provide appropriate "think-steps" for each skill-step

_______Recognize the students' response

_______Request a return demonstration of the whole skill

8. **<u>Individualized Instruction</u>**: Do I . . .

_______Utilize individualized instruction when appropriate

_______Encourage students to carry on in-depth investigations in areas of their own interest

9. <u>Study Groups</u>: Do I . . .

_______Encourage formation of study groups

_______Suggest group membership when appropriate

SKILLS FOR ONE-ON-ONE TEACHING

1. OVERVIEW - WHOLE SKILL
2. STEP-BY-STEP BREAKDOWN
   A. RETURN DEMO EACH STEP
   B. "THINK" STEPS - SHARED - CHECKED ON
   C. QUESTION SEQUENCE EACH STEP
      1. WHAT? 2. HOW? OR ANOTHER WAY? 3. WHY? 4 WHAT IF?
3. RECOGNITION OF STUDENT RESPONSE
   A. PRAISE WITH CRITERIA
   B. REPHRASE PARTIALLY CORRECT RESPONSE
   C. PROVIDE LEADING (CUEING) QUESTION FOR INCORRECT RESPONSE
4. RETURN DEMO - WHOLE SKILL

PRINCIPLE

Understanding the curriculum development process enables the teacher to adjust content as necessary to meet emerging developments in the state of knowledge and to make the curriculum relevant to the learners and the society. The curriculum development process is particularly useful for guiding the selection of critical and relevant concepts and skills from among the proliferation of possible content in a knowledge base that is doubling every two years.

LEARNING ACTIVITIES

The curriculum development process is diagrammed below. It begins with an assessment of the values which will guide all other decisions to be made in the process.

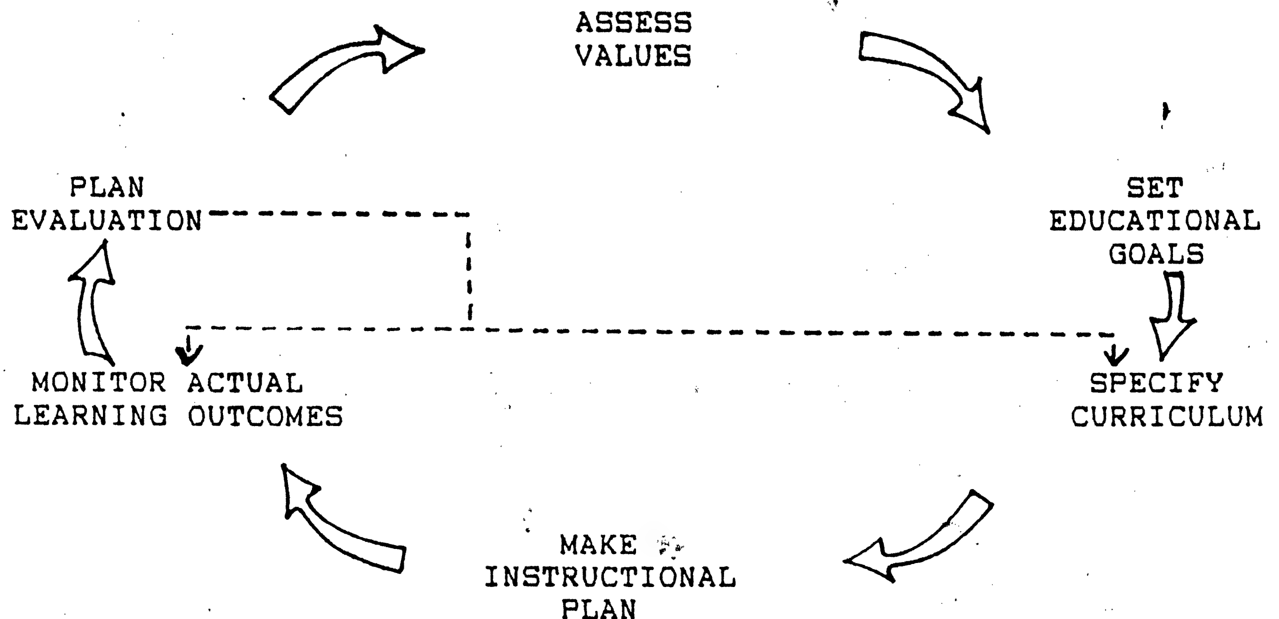


FIGURE 2: Curriculum Development Process

NOTE: Figure 2 adapted from Johnson (1967).

LECTURE SKILLS

1. Advance Organizers

   A. Overview
   B. Rationale
   C. Content Outline
   D. Central Question(s)

2. Coherent Sequencing

   A. Logical
   B. Step-by-step
   C. Chronological
   D. Cause Effect
   E. General to Specific
   F. Concrete to Abstract

3. Referential Transitions

4. Periodic Response by Students

5. Internal Summary

   A. End of Each Stop
   B. End of Each Major Content Area
   C. "Do" Parts
   D. "Show" Parts

6. Visual Supplement

   A. Provides Details
   B. Gives Examples
   C. Can be Summary

7. Challenge

   A. Pose Problem to Solve
   B. Request Prediction
   C. Elicit Relationship to Prior Learnings
   d. Ask for Support, Rationale, Critique, Etc.

8. Summarize

   A. Major Ideas
   B. Applications
   C. Implications

LECTURING DEFINED

A SPEECH may be either (1) a lecture, (2) a performance, or (3) a public appearance. These can be distinguished from one another in terms of the goals of the oral presentation. A LECTURE is designed to provide information and stimulate the listeners to learn the information provided. A PERFORMANCE is designed to entertain -- it may present information also but the speaker is at least as much concerned with the enjoyment he affords his listeners as he is with the learning that occurs among them. A PUBLIC APPEARANCE is designed to share the person (and personality) of the speaker with the listeners. It may present both entertainment and information but always does so within the context of "who" is speaking.

REASONS FOR LECTURING

1. To provide information otherwise unavailable to students.
2. To condense or summarize material available to students only as widely scattered bits within a huge amount of printed material.
3. To present a theme or framework within which to organize independent information gathering.
4. To provide a common background of shared information on which to base group work and/or discussion.
5. To make the teacher's experience and other personal resources available to the students through the teacher's interpretation and/or explanation of concepts.
6. To adjust information to the level of ability of the students; for example, to simplify difficult material or to specify applications or implications of the content.

PLANNING A LECTURE

1. Limit the lecture to one major subject; preview that subject in the introduction. Use advance organizers.
2. Limit the scope, deciding on the essential points to be covered.
3. Arrange the material in some definite sequence.
4. Provide an interesting opening to compel attention.
5. Plan to include illustrations and concrete examples. A good

lecture is like a see-saw with at least one illustration for each point presented.

6. Have a strong conclusion that summarizes the points of the talk and drives them home convincingly.

7. Allow time for students to ask questions. Any exchange of questions will cause students to listen more carefully and to learn more rapidly and accurately.

8. In brief, tell them what you are going to say, say it, and tell them what you have said.

TIPS ON LECTURING

1. Use the language of the learner.

2. Be patient and resourceful -- take the explanations slowly, carefully, and thoroughly.

3. Make liberal use of analogy, comparison, example and illustration.

4. Make visual aids a part of your lecture -- use them as much as possible to engage sensory modalities other than the auditory. In other words, use the show and tell technique.

5. Develop a good sequence of simple-to-difficult, step-by-step techniques for use in explaining or expanding on lecture material.

6. Use the students' knowledge and experience as a base on which to build.

7. Explain and define new terms.

8. Point out relationships of parts and processes.

9. Use logic and reasoning in explaining.

10. Develop concepts, history, and uses.

11. Be sure the group understands the goal of the lecture.

12. Keep eye contact with the class as you lecture.

13. Encourage questions as well as ask them.

14. Call attention to highlights, major points, relevance to past experiences of the students.

15. Use "medial summaries" to strengthen your lecture.

16. Stand where every student can see you without having to strain or sit in an uncomfortable position.

17. Face and look directly at your students. Don't neglect any section of the class by not looking at the individuals in that section.

18. Change your facial expressions often -- allow your interest and excitement about what you are presenting to show through. (IF you <u>aren't</u> interested or excited about it, you probably shouldn't be presenting it!)

19. Model thinking for the students -- have the <u>courage</u> to admit you do not know the answer to a question if the occassion arises. If appropriate, figure it out or consider alternative explanations with the students.

20. Avoid distracting mannerisms such as:

Chin rubbing	Fidgeting
Nose pulling	Floor pacing
Ear pulling	Tie adjusting
Cuff pulling	Toe balancing
Pencil waving	Key chain swinging
Brow wiping	Chalk tossing
Coin jingling	Eyeglass adjusting
Palm rubbing	Throat clearing
Ceiling gazing	Paper waving
Floor gazing	Hair smoothing or pate wiping.

21. WHEN THE STUDENTS REPRESENT A WIDE RANGE OF INTERESTS, ABILITIES, OR PRIOR KNOWLEDGE OF THE SUBJECT TO BE PRESENTED, BE SURE TO DO THE FOLLOWING:

   a. Present at the conceptual level, but be sure to define terms carefully.

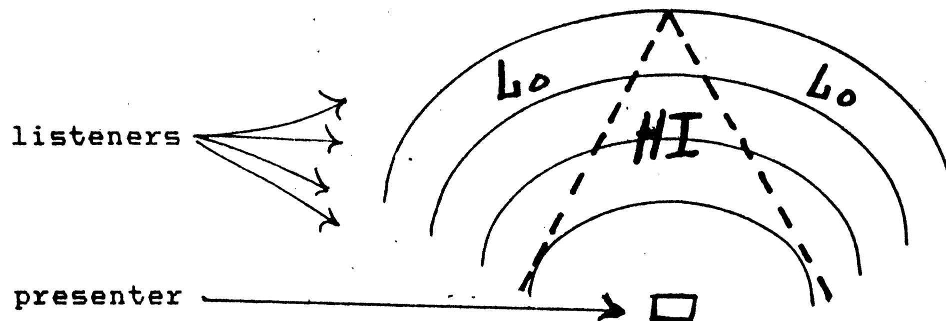
   b. Present to the mid-range of the audience.

   c. Augment presentation with handouts or lists of references of <u>two</u> kinds: (1) A basic list for students who need to "catch up" and (2) an "advanced" list for students who want or need to go beyond your presentation level.

   d. For the high level student, include occasional esoteric examples or applications and ask stimulating or thought-provoking questions relative to the subject (Thus, the high student can involve self in thinking through implications, applications, generalizations while you are

presenting more familiar material to others.)

22. Be aware of the <u>attention triangle</u> and address questions and eye-contact frequently to <u>back corners</u> of the group.



RATING SCALE FOR PRESENTATIONS

Presenter:______________________ Topic:______________________
Date:______________ Rater:______________

A. INVOLVEMENT: I felt as if I were. . .

5	4	3	2	1
Actively involved		minimally involved		a passive recipient

B. INTEREST: The presentation was. . .

5	4	3	2	1
very interesting	interesting	so-so	boring	very boring

C. RELEVANT: The presenter stimulated. . .

5	4	3	2	1
plans for action	critical thinking	association	recall	nothing relevant

D. ORGANIZATION: The presentation was. . .

5	4	3	2	1
highly organized.		partially organized		poorly organized

E. CONTENT: The content of the presentation was such that. . .

5	4	3	2	1
goals were fully achieved	most goals were accomplished	goals were partially achieved	goals were vague	goals were not indicated

F. PREPARATION: The presentation showed evidence of a thorough preparation, including (a) excellent knowledge of topic, (b) appropriate AV materials utilized and (c) logical sequence of content.

5	4	3	2	1
all well done	two areas okay	one area okey	no area done well	one area not done

G. PRESENTATION: Speaker used (a) eye-to-eye contact, (b) enthusiasm, (c) comfortable pace.

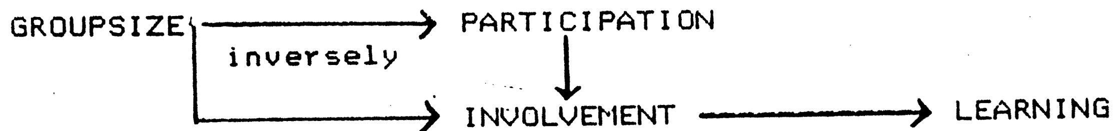
5	4	3	2	1
all well done	two areas okay	one area okay	no area done well	one area not done

H. LEARNING OUTCOMES: As a result of the presentation, I (a) clarified issues which had been doubtful, (b) gained some general and specific information, (c) found the content useful for application in my situation, and/or (d) raised some new questions.

5	4	3	2	1
all outcomes achieved	three outcomes achieved	two outcomes achieved	one outcome achieved	no outcomes achieved

NOTES AND COMMENTS:

Although lecture has its place in the medical school classroom, other ways of distributing information and learning activities are also pertinent. Research has clearly indicated that learning is increased when psychological involvement of the student in learning activities is high. Furthermore, it is known that group size is related to psychological involvement. The chain of relationships may be graphed as follows:



Other factors such as the type of group and the purposes for which the group was formed also effect learning. The chart below indicates outcomes which may be expected for various sizes and types of groups.

RELATIONSHIP OF TYPE OF GROUP TO OUTCOMES

# Stu	Kind of Group	PARTICIPATION	INVOLVEMENT Level	Highest LEARNING Level
1	STUDY	MEDIUM	LOW	3
	PROGRAM	HIGH		4
2-3	PEER BUDDY	HIGH	MEDIUM	3
3-8	PROBLEM-SOLVING	HIGH	HIGH	5
	PROJECT	HIGH	HIGH	6
8-15	DISCUSSION	MEDIUM	MEDIUM	4
15+	LECTURE	LOW	LOW	2

LEARNING LEVELS ARE:
1 - Facts
2 - Concepts
3 - Principles
4 - Relationships
5 - Operations
6 - Transfer

In addition to encouraging higher degrees of student participation, involvement, and response to learning tasks, the frequent use of small group organization in the classroom has other important implications for student growth:

1) Even "poor" students find they can contribute to a group project, thus build positive self-image.

2) Peer interaction encourages clarification and reinforcement of common goals.

3) Relative autonomy of the groups builds planning, organizing, and problem-solving skills; improves communication skills; and increases self-concepts of adequacy.

4) By structuring learning activities for small group work, the professor communicates a high degree of Respect to the students. He is saying, "I think you can do it without my constant supervision."

5) Small group work increases the possibilities for satisfying individual goals; thus increases the level of Success Promotion in the classroom.

Although a group has to have been established under the guidance and/or initiation of the professor for it to be considered an instructional group, not all the activities of the group must be carried out in the classroom nor under the supervision of the instructor. As you will see in the following discussion of different kinds of groups, the amount of autonomy with which a group functions is dependent upon its type and its purpose.

Instructional Groups

Learning activities can be distributed to students in many arrangements, ranging from Whole Class Activities to Individualized Instruction. Between these two extremes are a range of activities, generally referred to as "Groups". There are many kinds of groups, differentiated by three characteristics: (a) size, (b) selection of members, and (c) purpose. Before discussing the more commonly used group arrangements, it seems appropriate to clarify the two ends of the continuum: Whole Class and Individual arrangements.

Whole Group. Teaching delivery which is made simulataneously to every member of the class is referred to as whole group or whole class instruction. Activities commonly organized in this manner include lecture, film or slide presentations, tests, completion of worksheets or study guides, and other activities in which the primary purpose is the transmission of factual information. Many times activities may look as if they are individual when in fact

they are whole group activities. Although a student may read an assigned study or carry out a programmed learning package in an individual time and place, this is still a whole class activity so long as all others in the class are required to do it.This mode of organization does not lend itself easily to the encouragement of thinking or involvement on the part of students.

Individual. When learning tasks are distributed on an individual basis, each student is working on a task that is, in some way or other, unique to him. By this definition, a situation in which students are working alone but carrying out the same task in identical material would not be considered an example of individual distribution of learning tasks. Although you are doing this module alone, it is not considered individualization because the whole class is doing the same module. There are two major ways of individualizing.

(1) Students are assigned different skills on which to work. Pathology lab clerkships are a good example of students working on varied skills.

(2) Another way of individualizing instruction is by having each student carry out the same task as the others but use a material that is like no other person's materials. Your development of a lecture outline as part of the module on "Lecturing Skills" is an example of this way of individualizing instruction. The material (content of your lecture) will be, different from everyone else's but the task (develop a lecture outline) will be the same for all participants completing that module.

Types of Small Groups

Small groups generally have three (3) to (8) members. When students work on learning tasks and/or activities in small groups, the degree of involvement and participation which can be reached by each student is increased; thus, the amount of learning which can take place is also increased. There are many ways of organizing small groups. Some of the most important of these are discussed below.

(1) Ability groups. These groups are made up of students who are working at the same general achievement level. They are relatively permanent groups and the chance of a student moving from one group to another during a course is small. This leads to "labeling." Since the specific skill needs of individuals within an Ability group may be highly divergent, this kind of small group organization may tend to make a professor feel skills needs are being met when really they are not.

(2) Skill groups. These are small groups of students who--on

As used in the model above, several terms have special meanings. Make sure you understand the following terms in the way in which they are used in the model.

Curriculum is what is to be learned. A curriculum is an organized and stated set of intended learning outcomes.

Intended Learning Outcomes are specific skills or concepts which the learner is expected to master.

Actual Learning Outcomes are the specific skills or concepts which the learner has mastered after instruction is completed.

Curriculum development is the process of selecting and organizing the set of intended learning outcomes and revising them on the basis of results from subsequent evaluation.

Educational Goals explain why the curriculum should be learned. They guide curriculum development by specifying to what the learning should lead. These goals are derived from the values which were assessed in the first step of the process.

Instructional Plan specifies how to facilitate the learning of the intended outcomes.

Evaluation Plan specifies how the results of instruction will be assessed. As indicated by the dotted lines in the model, an evaluation plan compares the intended learning outcomes (ILO's) with the actual learning outcomes.

The Process of Curriculum Development

As indicated in the model, the process is as follows:

1. Values are assessed.
2. After values are assessed, the results are used to determine what educational goals should be set.
3. The educational goals, in turn, serve as guidelines in the development of the curriculum. That is, they help the instructor to establish and organize the intended learning outcomes of instruction.
4. After the intended learning outcomes (ILO's) have been stated and organized, the instructor uses them as guides in making an instructional plan to obtain those outcomes.
5. As the instructional plan is implemented, the actual learning outcomes are continually monitored and instruction is adapted, as needed, to attain the ILO's.
6. When instruction is complete, it is evaluated by comparing the ILO's to actual learning outcomes; then the curriculum or the instructional plan is modified as indicated by the results of the evaluation.

the basis of diagnostic testing--have been pulled together to work on the same skill needs. The members of the groups can come from any general achievement level. (FOR EXAMPLE: A good diagnostician may need to practice "tubal ligations" just as much as a poorer diagnostician.) The groups are temporary. They are formed to work on one skill. As soon as that skill is mastered, the group is disbanded and new groups are formed. Members who master the skill quicker than others move out of the group and into a new skill group or into individual activity until a new group forms. These groups do not lead to labeling. The best way to form these groups is through use of an error chart from diagnostic testing or observation of performance. (See pages 77-78 for example charts.)

(3) Interest groups. These are groups formed around a common interest of students. They are all interested in studying or learning about a specific topic related to the course. The professor provides them with a list of activities to carry out in their interest area or suggests things to discover. The students can then do these things with relatively little supervision because their own individual interests serve as motivators. Interest groups should culminate in some way of sharing their outcomes with the rest of the class. Such projects provide valuable information on a broad variety of topics. The way the group shares their interest should be designed by the members of the group, not by the professor, although the students can be required to check it with the instructor beforehand.

(4) Task groups. These are students who have been gathered together in order to pool individual talents and/or capabilities to carry out some specific task. For example, a group of students assigned to research and illustrate a physiological process might include one or two good designers, one student with excellent library research skills who can help the others find information, several "painters," and one person who will write and deliver a talk about the illustrated process. The specific assignments within the task group should generally be made by the students among themselves. Tasks for such a group can include projects, empirical or library research, committee work, doing and checking "co-op" homework, or any other task in which the purpose is to focus the pooled and varied talents of several individuals upon a product or process. Criteria for satisfactory completion of the task should be set before the task is begun. Task groups can be classified according to the nature of the task to be undertaken by the group. Frequently used purposes include the following:

Demonstration - students plan and present a demonstration of a skill related to course content. NOTE: This may also be the outcome of an interest group.

Exploration - students explore a topic and come up with a list of questions to be answered about it.

Experiential - students seek and report on an outside experience in common; e.g., observe a particular operation, visit a clinic, interview a visiting researcher, etc.

Fact-finding - students utilize special data collections or resources to provide the entire class with additional or updated facts related to the course topic.

Inquiry - students plan and conduct an extensive investigation in order to formulate an in-depth position statement or response to an open-ended question; i.e., a question which has no _one_ right answer. More than one inquiry group can work on the same question and each may come up with a different position.

Problem-Solving - students seek to determine an appropriate plan of action or solution to an open-ended problem, i.e., a problem which has more than one correct solution.

Project - students design and construct a product related to course content.

Resource - students identify and arrange appropriate utilization of additional resources to supplement, enrich, or reinforce course content for all members of the class.

NOTE: The distinction between an Inquiry group and a Problem-Solving group is that inquiry is focused upon information and problem-solving upon action. Members of both types of groups can be selected on the basis of _interest_ or on the basis of the _abilities_ needed to approach the particular task. In general, each problem-solving or inquiry group should include a student with task leadership capability, one or two good library researchers, at least one "social" facilitator, and a couple of followers. The questions to be answered or the problems to be solved can be devised and assigned by the professor, or they may have _arisen spontaneously_ from a discussion. In any case, the problem/question should be defined by the professor and the criteria for a successful solution should be specified _before_ the students start work.

(5) _Discussion Groups_. These are groups formed to discuss topics in relationship to course content. Student membership of the groups may be selected randomly or on the basis of similar interests. Discussion groups are an exception to the small group maximum of 8 students since Discussion groups may number as many as 15 members. Guidelines for the conduct of discussion groups should be established prior to the operation of such groups. Table 1 presents a set of such guidelines.

TABLE 1: GUIDELINES FOR DISCUSSION GROUPS.

1. Sense of Relaxation. A good discussion is conducted in a relaxed atmosphere. The group should take time to think thoroughly and should not be concerned with covering any prescribed amount of material.

2. Discovery attitude. Each group member should maintain an attitude of "discovering a solution." Even if you think you already have the right solution, maybe someone in the group can add to it. Remember, your purpose is discussion not persuasion. Look for new answers.

3. Silence. Don't be concerned if the group has a short silence. This is a normal part of group functioning at turning points or when the group is thinking through a new contribution.

4. Participation. Each member should be encouraged to participate but no one should feel compelled to speak. Each member should feel free to speak whenever he has something to offer, even if his idea is incomplete or unfinished. Getting it in the open offers others a chance to add to it.

5. Brevity. Be brief when you offer a contribution. Talking too long at a time causes others to lose interest and/or become inatentive so they don't really "hear" what you have to say. Avoid long illustrations to prove a point. Instead, just state the point and open it up for discussion. In discussion groups, one idea is worth a hundred stories.

6. Keep to the point. Don't introduce a new idea until the discussion on the old is finished. Otherwise the group will keep returning to "unfinished" business and the discussion will begin to "go around in circles" until everyone gets dizzy and nothing is acomplished.

7. Listen attentively. Each group member is responsible for really "hearing" and understanding what other group members say. If you aren't sure you are listening closely enough, try to rephrase what the prior speaker said before you reply to it.

8. Respect for others. Maintain an attitude of respect for others. They are performing a courageous act when they put their ideas up for discussion just as you are when you put your ideas out for consideration. If group members attack one another's ideas, or humiliate and embarrass contributors with demanding or antagonistic questioning and comments, no one will feel free to contribute. Try to express acceptance of others' ideas and build an atmosphere of warmth and friendliness.

9. Disagreement. When you disagree with an expressed idea, do not attack it. Instead, formulate what you believe and put it up for discussion. Use lead-ins like, "That's a good idea, but I think..." or "Can we also consider..."

10. Traffic. Speak whenever you have something to offer as long as the track is clear. Whenever the traffic is congested and everyone is trying to speak at once, you may need to pause long enough to agree on a "traffic director" who signals the right of way for speakers just while everyone is trying to talk. As soon as the traffic lightens up, the director goes off duty.

NOTE: These guidelines adapted from the procedures used by Dr. Arthur W. Combs. (University of Florida, Gainesville, Fl, 1969).

Pairs or Triads. These are most often used for the specific purpose of reinforcing the abilities of students in weak areas. There are two major types of these groups: (a) buddy grouping and (b) peer teaching.

In buddy grouping, two or three students who are at about the same level with similar but slightly different skill deficiencies work together to carry out learning activities. They are encouraged to help each other, and to talk about and discuss the task. In essence, this is a two or three member problem-solving group, with the problem defined as mastery of a particular skill or set of related skills. Buddy grouping is also effective for enrichment or exploratory activities.

In peer teaching, one member of the pair or triad already has mastered the skill and he now helps the other members of the triad or pair to do the work. This is most useful when the "professor" is a student who has just finished mastering the skill. Then being a teacher is a reward or recognition for learning and also serves as non-punitive additional practice on the skill just mastered.

Summary

Instructional Groups range in size from the individual to the whole class with a wide variety of "small groups" between these two extremes. These small groups can be classified on the basis of the number of members, the way in which the members were selected, and the purposes of the group. Each of these characteristics has an effect on the learning outcomes which can be anticipated from the group. Selection basis and purpose determined the motivation of the group members; size and purpose affect participation and involvement levels; and learning is largely determined by the motivation, participation, and level of involvement of the members. The task upon which the group is engaged is directly related to content and delimits the levels of cognition (thinking) which are required to achieve the purpose of the group.

The thoughtful professor selects from among the many kinds and purposes of learning arrangements those which will most effectively accomplish desired learning objectives. As a review of the types of groups discussed in this module, complete the following worksheet. After you have completed it, check your answers against those on the last page of the module.

Worksheet #1

DIRECTIONS: Classify each type of group in terms of (a) the number of members it can have and (b) the basis for selection of group members. In addition, estimate the highest level of cognition* which would be required of the group members in achieving the goals of the group.

TYPES OF GROUPS	SIZE OF GROUP	SELECTION BASIS	HIGHEST LEVEL OF COGNITION REACHED
Whole Class Group			
Individualized			
Ability Group			
Skill Group			
Interest Group			
Discussion Group			
TASK GROUP PURPOSES: Inquiry			
Problem Solving			
Fact-finding			
Experiential			
Exploration			
Demonstration			
Project			
Resource Use			
Other			
PAIRS or TRIADS: Buddy Group			
Peer Teacher			

*Cognitive levels are: Recall, Comprehension, Application, Analysis, Synthesis, Evaluation

****
* Now check your answers against those on *
* the last page of the module. *
****

Remember that there is no one right or best way to arrange students for teaching delivery. Rather you must distribute instructional activities to the size and type of group appropriate to the desired learning outcomes.

PERSONAL APPLICATION

Think over the last course you taught. ESTIMATE the number of times you used each Kind of Group during that course. Write the estimated number for each type of group in the left column below. Then answer the questions at the bottom.

KIND OF GROUP:	# Per Unit of Study
(W) Whole Group (class) Organization	________
(A) Ability Group Organization	________
(S) Skills Group Organizaton	________
(O) Other Small Group Organization	
1. Interest group	________
2. Task group	________
3. Problem-Solving group	________
(P) Pairs or Triads Organization	
1. Buddy grouping	________
2. Peer teaching	________
(I) Individualized Organization	________

Which kind of organization do you you use most?________

Which kind do you use least?________

Are your instructional activities concentrated on one kind of group or are they diversified?________

If you were teaching the course over again, what kind of groups would you use that you did not use last time? Why would you select those types of groups?________

____

ANSWERS to Worksheet #1

DIRECTIONS: Classify each type of group in terms of (a) the number of members it can have and (b) the basis for selection of group members. In addition, estimate the highest level of cognition* which would be required of the group members in achieving the goals of the group.

TYPES OF GROUPS		SIZE OF GROUP	SELECTION BASIS	HIGHEST LEVEL OF COGNITION REACHED
Whole Class Group		all students	none	comprehension
Individualized		1	need	application
Ability Group		3-8	achievement level	application
Skill Group		3-8	skill need	application
Interest Group		3-8	interest	analysis
Discussion Group		8-15	random or interest	synthesis
TASK GROUP / PURPOSES	Inquiry	3-8	talent/interest	analysis
	Problem Solving	3-8	talent/interest	synthesis
	Fact-finding	3-8	random/interest	comprehension
	Experiential	3-8	need/interest	synthesis
	Exploration	3-8	random/interest	analysis
	Demonstration	3-8	random/interest	application
	Project	3-8	talent/interest	application
	Resource Use	3-8	random/interest	evaluation
	Other			
PAIRS or TRIADS	Buddy Group	2-3	skill need	comprehension
	Peer Teacher	2-3	skill need	comprehension

ANALYSIS OF STUDENT NEEDS USING
AN ERROR CHART

One big help in grouping students for instruction is an error chart. The example on this page lists the errors by each student in the order in which the questions were on the test. The example on the next page is a reorganized error chart. The questions are clustered in terms of related content. Thus you get a better picture of the students' relative competency in various subject matter areas.

A Simple Error Chart

QUESTIONS	ERRORS BY STUDENT											ERRORS	
# Content Area	A	B	C	D	E	F	G	H	I	J	K	N	%
1 Research Proposal	x	x	x	x		x	x				x	7	63.6
2 Problem-Solving Group					x	x	x	x	x			5	45.4
3 Instructional Obj.	x	x	x	x	x	x	x	x	x	x	x	11	100.0
4 4-Part Lesson		x	x		x	x	x	x	x			7	63.6
5 Kinds of Questions	x	x		x	x	x		x	x		x	8	72.7
6 Research Design		x				x	x					3	27.2
7 Discussion Group			x	x	x	x			x			5	45.4
8 Motivating Students							x					1	9.1
9 Curriculum Def.		x			x			x			x	4	36.3
10 Educational Goal		x		x		x		x				4	36.3
11 I.R. Response	x	x	x	x	x	x	x	x	x	x	x	11	100.0
12 Accepting Ideas			x			x	x	x			x	5	45.4
13 Reasons for Lecturing	x	x	x	x	x		x	x	x	x	x	10	90.0
14 Using Questions	x		x		x		x	x	x	x		7	63.6
15 Lecturing Tech.												0	0.0
Total Errors Per Student	6	9	8	7	9	10	10	10	8	4	7		

A Reorganized Error Chart

QUESTIONS (by Content Cluster)	A	B	C	D	E	F	G	H	I	J	K	ERRORS N	ERRORS Mean
RESEARCH													
1 Writing Proposal	x	x	x	x		x	x				x	7	5
6 Good Design		x				x	x					3	
Small Groups													
2 Problem-Solving					x	x	x	x	x			5	5
7 Discussion			x	x	x	x			x			5	5
Curriculum													
3 Instructional Obj.	x	x	x	x	x	x	x	x	x	x	x	11	
9 Curric. Definition		x			x			x			x	4	6.3
10 Edu. Goal		x		x		x		x				4	
Learning Climate													
11 I.R. Response	x	x	x	x	x	x	x	x	x	x	x	11	5.7
12 Accepting Ideas			x			x	x	x			x	5	
8 Motivating Stu.							x					1	
Teaching Skills													
4 Four-Part Lesson		x	x		x	x	x	x	x			7	6.4
5 Kinds of Quest.	x	x		x	x	x		x	x		x	8	
14 Using Questions	x		x		x		x	x	x	x		7	
13 Reasons for Lectures	x	x	x	x	x		x	x	x	x	x	10	
15 Lecture Technique												0	

TRY IT !!

USE THE ERROR CHART ABOVE TO ANSWER THESE QUESTIONS:

1. Who would make good small group leaders?__________________

2. Which students should form a triad to review research?___

3. Which two topic areas does everyone need to learn?_______

____

THERE ! SEE HOW HELPFUL THAT IS !!

OBJECTIVES:

1) The trainee will understand the components of the questioning triad.

2) The trainee will appreciate the interactive nature of the elements of the questioning triad and perceive it as complete process.

3) The trainee can (a) elicit a student contribution,
(b) effectively utilize active listening skills, and
(c) respond appropriately and facilitatively to a student contribution.

OVERVIEW

Questioning is a three-part interaction. The questioning triad consists of: (1) elicitation by the teachers, (2) response by the student while the teacher listens, and (3) response to the student by the teacher. The questioning interaction is incomplete and ineffective if any part of the triad is left out.

First, we will deal with elicitation skills. Then we will study listening and responding skills as they occur in the questioning interaction. The outline of the module content is as follows:

TEACHER BEHAVIORS IN THE QUESTIONING TRIAD

I. ELICITATION

A. Decide purpose for question

B. Choose kind of question to meet purpose

C. Ask question

II. LISTENING

A. Indicate who is to respond

B. Listen to student's response

III. RESPONDING TO STUDENT

A. Report to the student about his answer

B. Use answer to Expand the Interaction

Assessing Values and Setting Educational Goals

In the curriculum development process, values are assessed in three areas: society's needs, structure and content of the subject matter, and learner's needs. The instructor considers all the information he/she has or can obtain which is relevant to these three areas and develops a conceptual framework about the learner, the society's needs, and subject matter. This conceptual freamework is then used to develop educational goals and to write a rationale for the course. Figure 3 portrays this process.

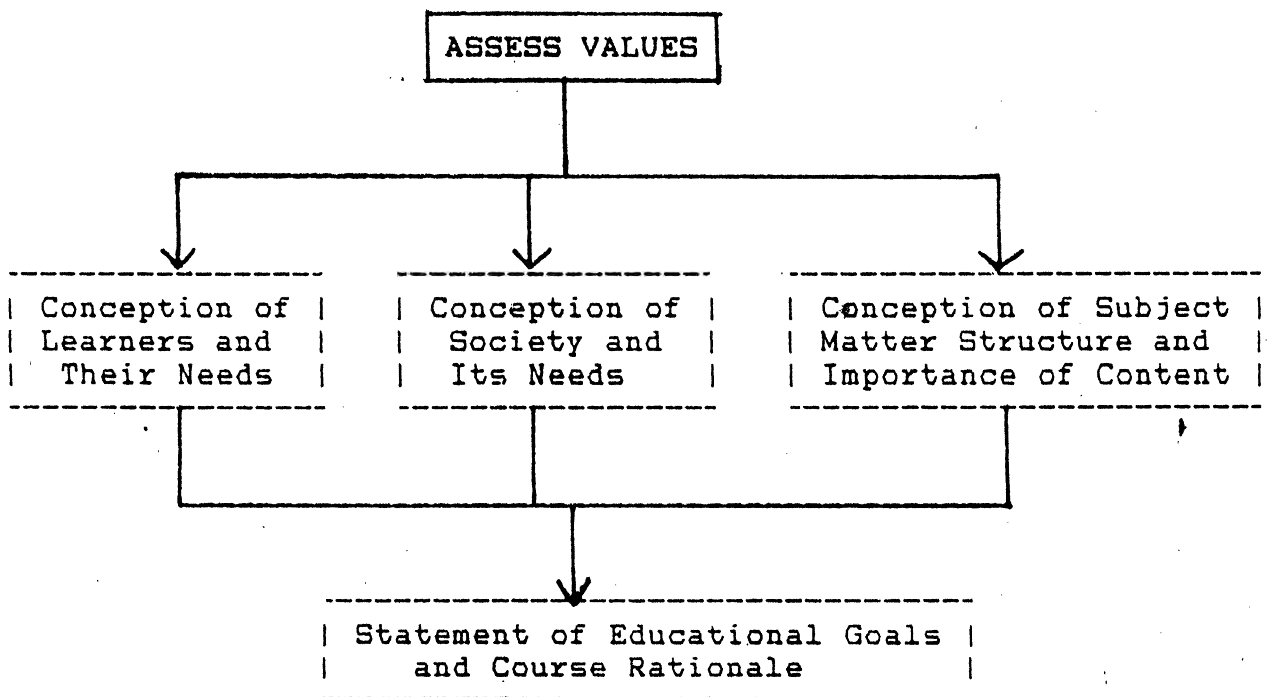


FIGURE 3: Values Assessment

Values which are assessed for the **learner** include the probable interests, abilities, learning style, and needs of students who will be taking the course. For example, a course on Family Planning will be different according to whether the potential learners will be third year medical students, midwives, village health aides, or nurses.

Values which are assessed for the **society** include social responsibilities of the intended learner, constraints within the society, and the needs of society such as preserving social order, special problems which need solutions, occupational/production

PRE-TEST

In the space below, you will take a pre-test of your questioning skills. As you go through the module, you will receive feedback on your skills. You will then record your score in the boxes to the right of the spaces below. Now take your test by doing the following:

1. First, write 3 topics that you might use in your classroom. Each topic should be broad enough so that you could ask your students at least five questions about it.

   Topics:

   A. ______________________________

   B. ______________________________

   C. ______________________________

2. Then, select one of the topics you wrote above. Write five questions that you might ask your students about that topic.

Questions	Kind	Cont.
A. ______________________________		
B. ______________________________		
C. ______________________________		
D. ______________________________		
E. ______________________________		
Total		
Kind + Cont. Score		

3. Now, pretend that you have asked a question. Write your response to each student whose situation is described below:

Student A: Student A's answer was a correct response to the question you asked. He had a broad smile on his face when he finished. Student A is one of your best students.

A's Reply: The World Trade Center is the most wonderful building in the world because it is the tallest man-made structure. It is so tall that when the wind blows, it sways back and forth two feet at the top.

YOUR response: ______________________________

____

Student B: Student B spoke in a small voice and paused several times between phrases. He got most of the answer right but was wrong on at least two parts. He looked down at his clasped hands while he talked. His knuckles were white because of the tightness of his grip.

B's Reply: "I think the Empire State Building is the most wonderful building in the world because it is the tallest man-made structure. It is so tall that when the wind blows, it sways back and forth ten feet at the top."

YOUR response: ______________________________

____

Student C: Student C never answers questions in class and never volunteers. But almost before you had finished asking this question, his hand was up in the air. Naturally you called on him immediately. The answer was completely incorrect and irrelevant.

C's Reply: "The Andes are the tallest mountains in the world."

YOUR response: ______________________________

____

4. The four patterns which the teacher can use to indicate who is to answer are listed below. Define them:

   a. Enmasse: ______________________________

   b. Post-Select: ______________________________

   c. Pre-Select: ______________________________

   d. At Will: ______________________________

Remember, you will score your answers as you go through the module.

INTRODUCTION

Questioning can be utilized by the alert and creative teacher in at least the following six ways:

1) To assess readiness of the student for the next step in learning.

2) To establish a facilitative learning climate in which the student feels it is safe to risk thinking.

3) To build motivation by tapping in on student resources, ideas, and ability, so that they can make meaningful-to-them contributions to the learning process.

4) To reach content objectives through active involvement of students.

5) To conduct evaluation in the moment-to-moment situation.

6) To provide basis for feedback to students on their mastery of the learning process.

Specific reasons for using questions include the following:

1. To provoke thinking.

2. To provide opportunity for self-expression.

3. To stimulate further discussion and participation.

4. To model reasoning.

5. To help the teacher determine the student's progress.

6. To aid the teacher in checking his/her own progress.

7. To assist students in determining their progress.

8. To arouse curiosity.

9. To initiate student use of previous knowledge in current learning.

10. To encourage participation

Questions can also be used to obtain attention, to bring out or reaffirm the aim of the lesson, and to help determine individual differences.

ELICITATION

Earlier, we said that questioning was a three-part interaction. It consists of : (1) elicitation by the teacher, (2) response by the student while the teacher listens, and (3) response to the student by the teacher. The interaction is complete only when all three parts of the triad have been carried out effectively. Figure 1 displays this interaction.

Figure 1: Effective Questioning

INSTRUCTOR QUESTIONS

THE QUESTIONING TRIAD

STUDENT(S) REPLY

INSTRUCTOR RESPONDS

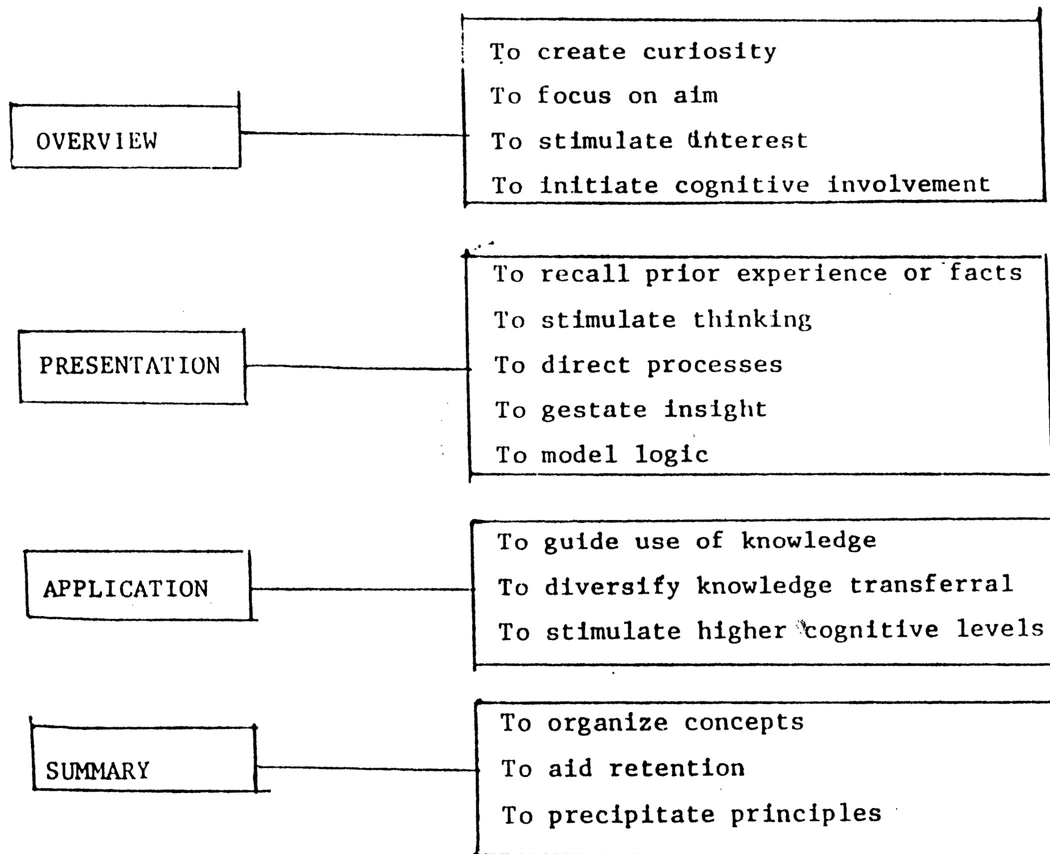
The first part of the questioning triad is elicitation. Unless the teacher properly elicits a student response, active classroom interaction will fail to get started. In this part of the module, we will be dealing with just the elicitation part of the triad. Elicitation includes both the question which the teacher asks and the way in which it is asked.

Purposes for Questions

Eliciting is primarily a skill in goal setting. The teacher must determine the purpose for using a question and the goal the class should reach in their responses. Then, the timing and the kind of question which will best reach this goal are selected.

Many questions will become spontaneous when questioning is a part of the teacher's regular interaction with students but good questions are usually planned. Key questions must always be planned. The timing of each question should be related to its purposes. See Figure 2 for examples of timing by lesson phases related to purposes for questions.

Figure 2: Purposes for Questions During Four Lesson Phases



Questions are only as effective as the way in which they are used. The purpose for using questions can be defeated by improper uses. Poor use of questions can even be harmful since it may be destructive of pupil interest, confidence, or creativity. Successful users of questions have mastered these techniques:

1. One question - one idea! Double or triple questions confuse the issue. The student may not be sure of what is expected or what is being asked. Two examples of poor multiple-type questions follow:

a. How and why does an I.U.D. work?

b. What are the differences between a Saf-T-Coil and a Progestasert-T, what diagnostic factors determine selection for use, which is your preferred model, and why?

2. Ask - not interrogate! Questions should be a normal part of the lesson and asked in a conversational tone as part of a continuous, sequential presentation. Use your own words - not those of the text or a teacher's manual.

3. Target Everybody! Scatter questions over the entire class. Do not follow any regular pattern such as alphabetical order, across the front of the room, or across the back, or up and down rows. This tends to involve the entire class in the thinking process rather than just the one person "scheduled" to answer next.

4. Thinking takes time! Allow a reasonable time for answering. Give the student time to think. On the other hand, do not allow so much time that it becomes unfair to the other students or is embarrassing to a student who is searching unsuccessfully for an answer. Questioning techniques which prove embarrassing (or cause a student to appear ridiculous to others) inhibit participation. Prior exposure to such techniques are one reason why many students will not respond when a teacher asks questions.

5. Nuture success! Ask questions within the ability of the student who is to respond. Asking a question that a student cannot answer is unproductive, unkind, and wasteful of instructional time. On the other hand, a challenging question just within the outer limits of the student's capability is rewarding and exciting.

6. Don't be a crutch! Encourage students to complete their answers. Ask leading questions or give clues which enable the student to fill in essential parts of his answer. Don't answer for the student. If a student has trouble, resulting in an incomplete answer, never ask another student to "help" as that is humiliating.

7. Encourage inquiry! Stimulate students to ask questions. A good question by a student is rewarding to the teacher because it indicates curiosity and interest in the subject. It is rewarding to the student because it allows him to express his interests and relate class activities to his prior experiences and his talents.

8. Tips! Other brief questioning hints include the following:

a. Questions should be brief and clear.

b. Questions should be specific.

c. Questions should help meet student's needs.

d. Call upon the students' past experience.

e. Use questions purposefully; not just to fill time.

f. Do not ask questions which can be answered with a simple yes or no.

g. Do not ask questions which contain the answer.

h. Ask questions informally.

i. Ask questions sincerely, not sarcastically or facetiously.

j. Questions should be relevant to the interests and goals of the students.

k. Questions should be relevant to the lesson.

1. Ask the type of question which is appropriate to the phase of the lesson and the purpose for the question.

Types of Questions

There are many types of questions. One way of classifying questions into types is to categorize them according to the kind of answers they require. Other ways classify questions by the content of the answer or the level of thinking required.

Kinds of Answers Required: One simple way classifies questions as to whether the required answers are (1) Narrowing, (2) Expanding, or (3) Evaluating responses. *

1. Narrowing questions are sometimes called Convergent questions. These questions are used when the teacher wishes to control student participation. They generally have only one or a very limited number of right answers. They call for the student to use memory to identify the right response from already learned responses. They tend to limit participation and to direct interaction towards predetermined specific goals. Questions with the form of "who, what, when, where, or which one" are generally narrowing questions.

   TRY IT! In the space below, write a narrowing question. Then answer it.

   YOUR question: ______________________________

   ____

   YOUR answer: ______________________________

* *

CHECK UP! Check to make sure that the question you wrote was a narrowing question by examining the answer you wrote for the question. Answers to a narrowing question usually (a) are short, (b) require little thinking, (c) are based on memory rather than understanding, (d) there is often only one correct answer, and (e) that answer often may be guessed.

* *

WARNING! Sometimes a narrowing question is disguised as an expanding or evaluating question. That is, the question really has more than one answer but the only "acceptable" answer is the one for which the teacher is looking. Whenever part of getting the right answer is figuring out what the teacher wants, rather than the solution of a problem or the application of a thinking process, then the question becomes a convergent or narrowing question.

PRE-TEST FEEDBACK! Look at the five questions you wrote on the "Pre-Test". For each question, decide whether it was a narrowing question. If you have trouble deciding, answer the question and compare your answer with the characteristics in the CHECK-UP! box above. If it is a Narrowing question, write an "N" in the column under "Kind" at the end of the line on which you wrote the question.

* This classification schema devised by Dr. Dave Berenson, American International College, Springfield, Massachusetts.

2. Expanding questions generally have more than one acceptable answer. These questions are used when the teacher wishes to free the students to participate fully. They call for the students to use higher levels of thinking in ascertaining what the response is to be; they tend to open up participation and to direct interaction towards discovery and exploration. Questions with the form of "how, why, what if, and what others," are generally expanding questions.

TRY IT! In the space below, write an expanding question. Then answer it.

YOUR question: ____

____

YOUR answer: ____

____

* *

CHECK UP! Check to make sure that the question you wrote was an expanding question by examining the answer you wrote for the question. Answers to expanding questions generally meet most of the following criteria:

a. There is at least one other answer which is also acceptable.
b. The answer was not recalled in its entirety from previously learned material.
c. In order to formulate the answer, ideas had to be (a) recombined, or (b) taken apart, or (c) transferred from an old to a new context.
d. The answer tends to be longer than the question which stimulated it.

* *

PRE-TEST FEEDBACK! Look again at the five questions you wrote on the "Pre-Test". For each question, decide whether it is an Expanding question. If you have trouble deciding , answer the question and compare your answers with the criteria in the CHECKUP! box above. If it is an Expanding question, write an EX in the column under "Kind" at the end of the line on which you wrote the question!

3. Evaluating questions generally call for students to make some kind of assessment about the topic under discussion. Depending upon the content of the question, this assessment is made in terms of (1) external criterion, (2) previously established standards, or (3) personal values. The specific criteria to be used are either (a) specified in the question or (b) supplied in the answer. For example: Using our list of diagnostic criterion, which is the better procedure? or "I think I.U.D.'s are a better contraceptive method for a young woman than sterilization because later on she may change her mind and want to have children."

Evaluating questions stimulate the student to use judgment, understanding, insight, comparison and logical thinking. Questions with the form of "Why did you..." or "Which would you select...?" or "Decide how well.."are generally evaluating questions.

TRY IT! In the space below, write an Evaluating question. Then answer it.

YOUR question: ____

____

YOUR answer: ______________________________

____

____

* *

CHECK UP! Check to make sure that the question you wrote was an Evaluating question by examining the answer and the question which you wrote. Evaluating questions and answers usually meet the following guidelines:

a. The question calls for a selection among at least two or more items.
b. In order to formulate the answer, alternatives or components of an idea or process must be compared against each other and against specific criteria for deciding among them.
c. The criteria are public; i.e., known to both questioner, answerer, and/or other listeners.
d. The criteria for making the judgment are established and applied before the answer is formulated.
e. The criteria are specified in the answer or in the question. In the case of pre-established standards, only a reference may be made to them.

* *

PRE-TEST FEEDBACK: Look one more time at the five questions you wrote on the "Pre-Test." For each question, decide whether it is an Evaluating question. If you have trouble deciding, answer the question and then compare both question and answer against the criteria in the CHECKUP! box above. One hint: If you can't tell how selection among alternatives is to be made, it is usually not an Evaluating question. If it is an Evaluating question, write a "EV" in the column under "Kind" at the end of the line on which you wrote the question.

4. CAUTION! It's easy to confuse Expanding and Evaluating questions because they both tend to open up interaction. The essential difference is that Evaluating questions call for a judgment using specified criteria but in answering an Expanding question decisions may be made on many bases, including those which are both unknown to others and unique to the individual. For example, "Which one do you like best?" is an Expanding question because others may not know your unique reasons for selecting that item. On the other hand, "Which process would be more productive of clear thinking?" is an Evaluating question because the criterion ("productive of clear thinking") is specified.

Sometimes Expanding and Evaluating questions are lumped together and called Divergent questions. Divergent questions call for the student to use his prior experiences, his knowledge and understandings, to produce a logical or suitable answer. They stimulate use of judgment, analysis, organization, comparison, understanding, insight, creativity, imagination and/or logical thinking. Remember!

Convergent = Narrowing

Divergent = Expanding or Evaluating

PRE-TEST FEEDBACK: Figure your score for <u>Kind</u> of questions. Give yourself 1 point for each "N", 2 points for each "EX,", and 3 points for each "EV." Add your scores together to get a total score for <u>kind</u> of question. Remember:

1 = N = Narrowing

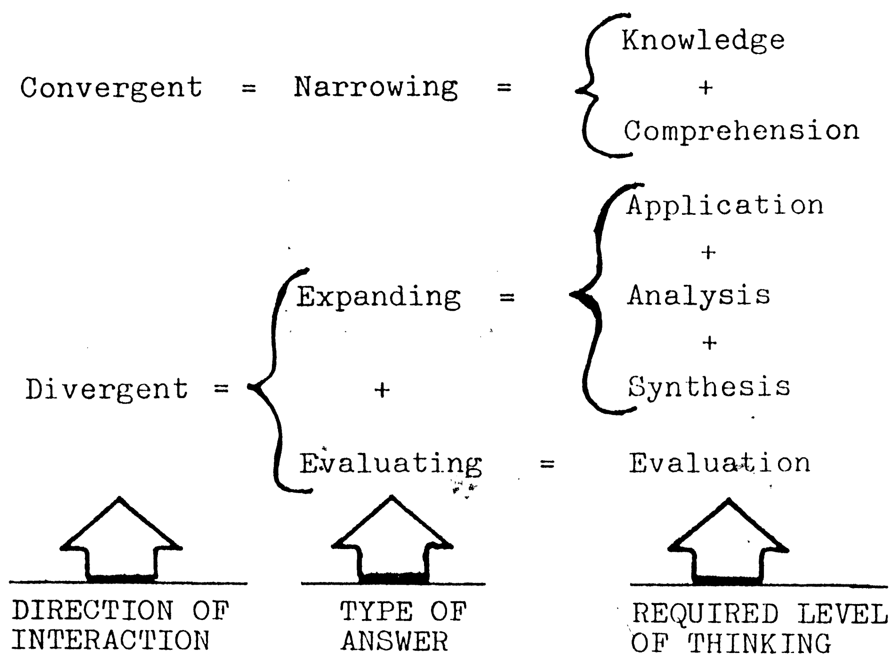
2 = EX = Expanding

3 = EV = Evaluating

The score for "Kind" which is <u>most often</u> attained by classroom teachers on this pre-test is 6. Very few people get more than 10.

<u>Levels of Thinking Required</u>: Another way of classifying questions is according to the level of thinking required to answer the question. One commonly used system is Bloom's Taxonomy of Cognition which has six levels (or categories) of thinking. This way of categorizing questions breaks Convergent or Narrowing questions into two smaller categories: Knowledge and Comprehension. And it subdivides Expanding questions into three categories: Application, Analysis, and Synthesis. Figure 3 shows the relationships among 3 ways of classifying questions.

Figure 3: Three Ways of Classifying Questions



On the next page, Figure 4 defines questions by levels of thinking and provides examples. Study it carefully. Then do the following:

A. On your pre-test, you listed three topics. You used <u>one</u> of the topics to write questions on the pre-test. Select <u>one</u> of the two <u>remaining</u> topics (that you did <u>not</u> use on the pre-test). Write it here:

______________________________.

B. Now, write <u>six</u> questions about the topic you selected above. Each question should require a different level of thinking for its answer.

1. Your KNOWLEDGE question: ______________________________
____

2. Your COMPREHENSION question: ______________________________
____

3. Your APPLICATION question: ______________________________
____

4. Your ANALYSIS question: ______________________________
____

5. Your SYNTHESIS question: ______________________________
____

6. Your EVALUATION question: ______________________________
____

C. Circle the question stems in your 6 questions and compare them to the examples in Figure 4.

D. Which kinds of questions were the most difficult for you to develop?

______________________________ & ______________________________

E. Which kinds of questions are hardest to differentiate? ______________ & ______________________. Most people have trouble with the difference between (1) knowledge and comprehension or (2) analysis and evaluation. Clues to the differences are:

1. In answering a <u>knowledge</u> question the student just needs to <u>recognize</u> or select an answer. For a comprehension question, however, the student must show that he understands the <u>meaning</u> by <u>restating</u> or <u>re-ordering</u> the material.

2. In answering an <u>analysis</u> question, the student merely has to be able to separate the idea or process into its parts and relate them logically. For <u>evaluation</u> questions, the student must take the further step of making a considered judgment about the idea or process as a whole.

Category & Definition	Key Processes	Typical Question Stems
1. KNOWLEDGE Questions that can be answered through simple recall of previously learned material.	Remembering	1. Name; list 2. Tell 3. Define 4. Who? Where? What? 5. "Does...?" "Was...?" "Is...?" "Should...?" * 6. How many? How much? 7. Label (the diagram, picture, etc.)
2. COMPREHENSION Questions that can be answered by restating or reorganizing material to show that the student understands the meaning. Nothing new is added to previous learning.	Translating or Understanding	1. In your own words, tell... 2. Supply an example 3. What is the most important... 4. What caused... 5. Compare. 6. Contrast. 7. Why did you give that answer? 8. The result will be...
3. APPLICATION Questions that require the use of already learned processes, skills, or techniques in new situations.	Problem-Solving or Transferral	1. Solve... 2. Apply the generalization to... 3. How could you...
4. ANALYSIS Questions that require the identification of relationships or breaking an idea into its component parts for analysis.	Logical Thinking or Identifying Relationships	1. How are the parts related? 2. What reason does the author give... 3. What method does the author use... 4. What is the author's major viewpoint? 5. What words express bias or emotion? 6. Is the conclusion supported by evidence?
5. SYNTHESIS Questions that require the combination of ideas into a statement, plan, product, etc., that is new for the student.	Imagining or Creativity	1. Design a plan... 2. Develop a model... 3. Combine those parts... 4. Create a symbol... 5. Make an analogy...
6. EVALUATION Questions that require a judgement to be made by using some specified criteria or standard for making the judgement.	Judging	1. Why did you select... 2. Evaluate in terms of... 3. Which do you think would result in (the largest gains for the smallest risk)? 4. Use your personal values for (a good work context) to evaluate (these career options)?

---

* All questions which can be answered yes or no.

Content of Required Answer: The third major way of classifying questions takes into account the content of the answer. That is, questions can be categorized according to whether they require primarily cognitive/intellectual content or whether they also deal with affective/emotional areas. Thus we have two classes: (1) Cognitive and (2) Cognitive + Affect.

1. COGNITIVE: Questions which deal only or primarily with cognitive content are those which deal with facts, ideas, and concepts as if they were divorced from the persons in the questioning interaction. A request for a recitation of the multiplication tables would be an example of this. What are some other examples of cognitive content questions? Write your question here:

   a. ____________________

   b. ____________________

   c. ____________________

* *
* CHECK UP! If the answer could be supplied by a computer or a teaching machine, it's a cognitive only question. That is, there is nothing in the question which would require anything unique to an individual for the question to be answered correctly!
* *

2. COGNITIVE + AFFECT: Questions which include an affective component relate the intellectual content to the persons involved in the interaction. These questions are generally addressed to one particular individual and...

   a) call for his/her personal opinions, evaluations, ideas and expression of feelings, or

   b) relate the question to his/her background, previous experiences, attempts in this area, or

   c) recognize his/her feelings about the content or the process.

For example, such a question might be: "Johnny, you did well on this yesterday, would you like to try it again?" or "Marvin, I know you are interested in astronomy. I wonder if you could give us an example of one way in which color is important to astronomers?" or "Sue, why do you think that's best?"

Most of the typical "question stems" in Figure 4 call for cognitive content only. But three of them can be classified as Cognitive + Affect. Which are they?

   a. ____________________

   b. ____________________

   c. ____________________

* *

CHECK UP! The 3 Cognitive plus Affect question stems in Figure 4 are:

Comprehension, # 7: Why did you give that answer?

Evaluation, # 1: Why did you select...?

Evaluation, # 4: Use your personal values for a good work context to evaluate these career options.

* *

What are some other examples of questions that deal with both cognitive and affective content? Write your questions here:

a. ______________________________

b. ______________________________

c. ______________________________

* *

CHECK UP! Check your questions to make sure they involve affect.
HINT: If it's really an affective question, the answer will generally be different for each person who answers the question.

* *

PRE-TEST FEEDBACK: Now look back again at the five questions you wrote on your Pre-Test. In the column under CONT. at the end of each question, write "C" if the question deals only with the intellectual or Cognitive content. Write "A" if it includes an Affective element along with the Cognitive. Figure your Content score. Give yourself 1 for each "C: and 2 for each "A". Add your scores together to get your Total Content Score. Remember:

1 = C = Cognitive

2 = A = Cognitive plus Affect

The CONTENT score most often attained by classroom teachers is 5. Very few persons score 8 or above. Now add your scores for Kind and Content across to get a total score. The modal is 11 for total score.

REVIEW! The goals for human growth in the classroom are to increase: (1) the amount of student participation in class, (2) the amount of acceptance of the students' feelings, (3) the level of thinking in which students engage, and (4) the degree of involvement which students exhibit. Which kinds of questions do you think would be helpful in reaching these goals? Write your answer below. Choose KIND from NARROWING, EXPANDING, EVALUATING. Choose CONTENT from Cognitive or Cognitive + Affect.

HUMAN GROWTH GOALS--TO INCREASE:	HELPFUL KIND OF QUESTION	HELPFUL CONTENT OF QUESTION
1) amount of participation	____________	____________
2) acceptance of feelings	____________	____________
3) level of thinking	____________	____________
4) degree of involvement	____________	____________

* *

* CHECK UP! <u>Expanding</u> and <u>Evaluating</u> Questions that deal with <u>affective</u> content tend to open up classroom interaction. They tend to increase (1) amount of participation, (2) acceptance of feelings, (3) level of thinking, and (4) degree of involvement. *

* *

Now, see if you can finish filling in the worksheet below with questions which fit the categories indicated. We've done the first one in each category for you!

	TYPE OF QUESTION and DIRECTION OF INTERACTION	CONTENT REQUIRED	
		Cognitive Only	Cognitive & Affect
CONVERGENT	NARROWING: only 1 or very few right answers; student selects from already learned responses; "who, what, when, which one"	1. Define "prolactin". 2. ______	1. Dr. Joe, I know you've been excited about your research in this area. Can you give us an example? 2. ______
DIVERGENT	EXPANDING: more than 1 right answer; student must use higher levels of thinking; interaction directed towards discovery; "how, why, what if, what others"?	1. Give 2 or 3 possible locations of an ectopic pregnancy. 2. ______	1. If you were President of the U.S., how would you handle the problem of disarmament? 2. ______
DIVERGENT	EVALUATING: many potential answers; student must <u>assess</u> and <u>select</u> according to appropriate or specified (1) external criterion (2) previously established standards, (3) personal values	1. If the data to be analyzed included one nominal and one categorical variable, which test of relationship would be most appropriate? 2. ______	1. List the criteria on which you would select a new car. Then evaluate each of three cars by your criteria. 2. ______

Summary of Elicitation: So far, we have learned that questioning is a three-part interaction, consisting of 1) elicitation by the teacher, 2) response by the student, and 3) response to the student by the teacher. We have learned that certain kinds of questions could be expected to effect an increase in the criteria for effective human growth in the classroom.

Whether these increases will be maintained or not would depend on your skills in the other two parts of the questioning triad: (1) Listening to the students' answers and (2) Responding to the students' answers. The remainder of the training module will deal with these latter skills.

LISTENING TO RESPONSES

The second part of the questioning triad--response by the student--involves certain actions on the part of the teacher. These actions generally are (1) to indicate who should answer and (2) to listen to the response.

Indicating Responder: There are four major patterns which the teacher can use to indicate who is going to answer. These patterns are:

1. Enmasse -- this calls for a chorale answer... all students answer together. It should be used very seldom and only for specific purposes which can be met in no other way.

2. Post-select -- this pattern requires that the person to answer is indicated after the question has been asked. Such a pattern keeps the whole class listening to the question. It is used when the class is participating well to encourage thinking by each individual.

3. Pre-select -- this pattern is the reverse of the post-select. In this pattern the person who is to respond is indicated before the question is asked. Its' major purpose is to encourage participation by a student who has not been involved in the on-going interaction. By pre-selecting, you give the student a chance to listen to the question. When using this technique be sure the question is within the student's ability and include all necessary information or specific facts as part of the question. Remember, your goal is to get the student involved, not to embarrass him.

4. At will -- this allows anyone to answer who wishes to deal with the question. The students settle the traffic problem among themselves. Such a pattern is most useful within a classroom of students who are highly involved with a common learning goal or activity.

PRE-TEST FEEDBACK! Check your answers for part 4 of the Pre-Test. Compare your definitions with the ones above. If they mean the same thing, give yourself 1 pt. credit for each good answer.

Listening to Responses:

After calling on a student, listening to the response is a most important skill for the teacher. Listening means attending not only to the content of the student's response but also to the student's feelings about self and about the response. Skillful listening is a pre-condition to skillful responding.

In listening to student responses, you have three tasks: (1) listen carefully, (2) identify both the feeling and the content, and (3) determine quality of answer.

Listening Carefully: You must really listen to the students' response. If you are listening carefully, you should be able to repeat the answer word-for-word. It helps if you look at the student while she/he is answering. This lets the student know you are really interested in his/her response and it helps you focus your attention on what is being said. You need to be able to listen well enough so that you can identify three things about the students' response:

1. What is the content
2. How does the student feel
3. How good is the quality or accuracy of the response.

TRY IT!. Ask a friend to help you try out your listening skills. Make up two divergent questions, before seeking your friend's aid.

1. Ask your friend one of the questions you made up.
2. Listen carefully while your friend answers the question.
3. Then, write the answer down as exactly as you can.
4. Ask your friend to read your transcription of his/her answer and mark the places where it is different from what he/she said. (NOTE: You can tape record the answer and compare your transcription to the recording!)
5. Repeat steps 1-4 with your second question.

* *
* CHECK UP! If your friend marked more than a total of 5 differences for *
* the two questions, you need to practice your listening skills. *
* *

Identifying Feeling and Content: To identify how a student is feeling, you listen to the way the student gives the answer. You pay particular attention to voice tones, to phraseology, and you observe facial expressions, gestures, and body posture. Then you try to find the one feeling word that best expresses (or names) how she/he is feeling. For example, a student might be feeling...

proud to be right,
unsure about the answer,
interested in the content,
intense about the idea,
angry that you called on him/her,
ashamed that he/she doesn't know the answer
confused about what is expected, etc.

Identifying Content is more than just knowing what was said. Identifying content involves two things: (1) hearing what the student is saying and (2) selecting that part of what he/she is saying which is related to the feelings being expressed. That is, you want to know what it is that the student is feeling "that way" about.

TRY IT! You have already practiced listening carefully to hear what the student is saying. Now practice identifying the feeling and content. Imagine that a student said:

> "In the book, it says that a comma always goes before the conjunction in a compound sentence, but you say that sometimes a comma is not necessary if the two clauses are short and closely related."

1. How is the student feeling? Write the one feeling word that most clearly names the emotion the student is feeling: ______________________

* *
* CHECK UP! Give yourself credit if you wrote a word that *
* means mixed-up or confused or doubtful. *
* *

2. Without looking again at the students' response, write down what he/she is confused about: ______________________

____

* *
* CHECK UP! Give yourself credit if you indicated that the student is *
* confused about the discrepancy between what the book said and what you *
* said about using a comma in a compound sentence. To be counted correct *
* your answer must have included the following components: *
* 1. that there there was a discrepancy *
* 2. the source of the discrepancy "you and book" *
* 3. that the discrepancy was about the use of comma in a compound *
* sentence *
* *

Determining Quality of Answer: There is another factor with which you must deal while listening to a student's response because it will become part of your feedback report to the student. You must determine how to report the quality of the response without making the student feel negative about self. Corrective feedback is part of the learning situation and must not be ignored in those situations in which it is appropriate. So, during your listening, you must also identify the quality of the answer, including the accuracy of factual information.

TRY IT! Read again the student response on the bottom of p. 18. Then write your evaluation of the quality of the answer.
YOUR Evaluation: ______________________

____

* *
* CHECK UP! Did you phrase the evaluation in terms which will not make *
* the student feel negative about himself when you provide him with *
* feedback? Did you note, for example: *
* (1) His information is accurate *
* (2) Both sources are reported fairly *
* (3) He is evidencing analytical thinking by comparing two *
* sources *
* *

REVIEW! List three tasks the teacher must do while listening to a student's response.

a. ______________________

b. ______________________

c. ______________________

* * * * * * * * * * * * * * * * * * *
* CHECK UP! The three tasks are: *
* 1. listen carefully *
* 2. identify feeling and content *
* 3. determine quality of answer *
* *
* * * * * * * * * * * * * * * * * * *

Responding to the Student

The teacher's response to the student is the third and last part of the questioning triad. It occurs in two parts. It must always include a report to the student of what he said. It may, and often should include a new elicitation to expand the interaction.

Reporting to the student: Your response to the student's answer should be a report to him that you heard both what he said and how he felt. A complete report to the student should have three parts to it:

a. Feeling - a statement about how the student felt about answering or about the answer.
b. Specificity - a reference to a specific part of the students' answers in order to show that you really heard it.
c. Quality Feedback - a report as to the quality or accuracy of the answer.

Sometimes, you may find it inappropriate to give feedback as to quality or accuracy. For instance, when you are trying to stimulate free exploration of new areas, this kind of feedback can have a deterrent effect. However, the lack of verbal response is feedback in itself and will be recognized as such by the student.

TRY IT! Let's see how to make a three-part report. Read the EXAMPLE below. "Listen" carefully. Identify both feeling and content. Evaluate the quality of the answer. Then you'll construct some responses to the student.

EXAMPLE: Bill volunteered to answer. When you called on him, he took a big breath, gulped, and said "3 times 2 is five!" Then he grinned a happy beam right at you.

a. What could you say to tell Bill you know how he feels about answering?

____

____

* *

CHECK UP! Compare your answer to this one: "You're happy about trying such a hard response." Did your response tell the student that you know both (a) How he was feeling and (b) what he was feeling that way about?

* *

b. Now, try to give Bill an indication that you heard his response.

____

____

* *

CHECK UP! Compare your response to this one! "3 x 2 is a hard fact." Did your response include a reference to some specific part of the student's answer?

* *

c. How could you give Bill a report on the quality or accuracy of his content without making him feel negative about himself?

____

____

* *

CHECK UP! Compare your response to this one:
It is easy to get 3 x 2 mixed up with 3 + 2. 3 plus 2 is five but 3 times 2 is six.

Did your response...

(1) Not use negative words such as "wrong", "incorrect"?

(2) Provide the information necessary to compare and re-think inaccurate answers?

(3) Make it okay to have tried and erred? That is, did your response support a climate in which trial and error learning is accepted as right and natural?

(4) Not repeat verbally the student's error?

* *

The next step is to put the three parts together into a complete report. Look at this example which blends the report on feeling and content, specific reference, and quality feedback:

EXAMPLE: You're happy about trying such a hard fact. It's so easy to get 3 x 2 mixed up with 3 + 2. 3 + 2 is five but 3 x 2 is six.

In the example above, do the following:

1. Circle the feeling word.
2. Underline the reference to a specific part of Bill's answer.
3. Put ( ) around the qualitative feedback.

* *

CHECK UP! Did you mark the example this way?
You're (happy) about trying such a hard fact. It's so easy to get 3 x 2 mixed up with 3 + 2. (3 + 2 is five but 3 x 2 is six.)

* *

TRY IT! Mary said, "I think...ah... I think a number family are numbers that tell different stories about the same number."

a. What could you say to Mary to tell her that you know how she is feeling?

____

____

b. Now try to give Mary an indication that you really heard her response.

____

____

c. How could you report to Mary on the accuracy or quality of her response without making her feel negative about herself?

____

____

Guidelines for stating educational goals are:

1. Describe the desired product; tell what students will be like -- not what they will know.
2. State goals as desirable characteristics resulting from the learning.
3. Indicate priorities among goals.
4. Tell the benefits the learner should derive from the course.
5. Each goal should be moderate in scope, neither too broad nor too narrow.

EXAMPLES:

1. This course is designed for adults who are active in local voluntary organizations and is aimed at improving their skill and confidence in dealing with local mass media.

2. This curriculum was planned to provide parents with the necessary incentives to utilize proper pre-natal and ante-natal nutrition.

3. Academic physicians will be good curriculum developers and instructional planners.

Course Rationale

The results of the values assessments and the educational goals which have been established on the basis of the values assessment should be presented in the form of a course rationale. The course rationale summarizes the values assessments and states the educational goals for the course or program. It briefly should state the values identified for the learners, the society, and the subject matter. All the educational goals for the course should be explicitly stated in terms of desirable characteristics of the learner and/or the benefits to the society or the learner.

Figure 5 diagrams the process of developing the course rationale. It also provides an example of the rationale developed for a program to teach family planning to nurses and nurse-midwives from developing countries.
The rationale in Figure 5 was developed for a course to be offered by JHPIEGO to nursing educators and nurse supervisors or district nurses from several countries. On page 15, you will find a course rationale that some of these participants developed for a family planning course for community nurse/midwives. Compare the two rationales and determine the differences deriving from the different levels of learners.

TEACHING SKILLS

FOR

HEALTH CARE PROFESSIONALS

by F. N. Roebuck

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TABLE OF CONTENTS

List of Tables

List of Figures

List of Rating Scales and Checklists